



Town of Arlington Select Board

Meeting Agenda

March 17, 2025

7:15 PM

Members of the public may access the hybrid meeting via Select Board Chambers, Zoom, or ACMI

1. Legislative Provision for Remote Participation

CONSENT AGENDA

2. Reappointments
Elderly & Disabled Tax Relief Committee
Michael Quinn (Term to Expire: 01/31/2028)
Jim Munsey (Term to Expire: 01/31/2028)
3. Banner Design Update for Arlington's 250th Commemoration
Cecily Miller, Arlington Commission for Arts & Culture
4. Acceptance: Boston MPO Community Connections Grant
John Alessi, Senior Transportation Planner
5. Approval: Arlington/Newton Memorandum of Agreement for MPO Community Connections Grant
John Alessi, Senior Transportation Planner
6. Confirmation Vote: Affirm License Granted to Owner of 125 Broadway in 1972
Michael Cunningham, Town Counsel

LICENSES & PERMITS

7. For Approval: Package Store License DBA Name Change
Roshani 1 Enterprise D/B/A Mass Ave Wine and Spirits, Vinod Chandra Zaveri, 137 Massachusetts Avenue

TRAFFIC RULES & ORDERS / OTHER BUSINESS

8. Update: Park Avenue
Jim Feeney, Town Manager
9. Statement of Interest in the MSBA's Accelerated Repair Program
Alex Magee, Deputy Town Manager
10. Future Select Board Meetings

WARRANT ARTICLE HEARINGS

11. Articles for Review:

Article 9 Bylaw Amendment / Observance of Town Employee Holidays
Article 11 Bylaw Amendment / Arlington Historical Commission Inventory
Article 20 Acceptance of Legislation / Clause 22I of M.G.L. Chapter 59, §5
Article 21 Acceptance Legislation / Chapter 399 of the Acts of 2024
Article 46 Endorsement of Parking Benefit District Expenditures

FINAL VOTES & COMMENTS

Articles for Review:

Article 6 Bylaw Amendment / Town Meeting Procedural Rules
Article 8 Bylaw Amendment / Canine Control
Article 12 Bylaw Amendment / Expanding Town Committee Membership Eligibility to all Residents
Article 13 Home Rule Legislation / Arlington Redevelopment Board as the Town of Arlington Board of Survey
Article 14 Home Rule Legislation / Real Estate Transfer
Article 15 Home Rule Legislation / To Amend the Senior Citizen Property Tax Exemption
Article 17 Home Rule Legislation / Rodenticide
Article 18 Home Rule Legislation / Ranked Choice Voting
Article 19 Home Rule Legislation / William Pilleri

NEW BUSINESS

Next Scheduled Meeting of Select Board March 24, 2025

When: Mar 17, 2025 07:15 PM Eastern Time (US and Canada)

Topic: Select Board Meeting

Register in advance for this webinar:

https://town-arlington-ma-us.zoom.us/webinar/register/WN_Vp_D2duRSVivbKtLNSJbJQ

After registering, you will receive a confirmation email containing information about joining the webinar.

Notice to the Public on meeting privacy In the interests of preventing abuse of videoconferencing technology (i.e. Zoom Bombing) all participants, including members of the public, wishing to engage via the Zoom App must register for each meeting and will notice multi-step authentication protocols. Please allow additional time to join the meeting. Further, members of the public who wish to participate without providing their name may still do so by telephone dial-in information provided above.



Town of Arlington, Massachusetts

Legislative Provision for Remote Participation



Town of Arlington, Massachusetts

Reappointments

Summary:

Elderly & Disabled Tax Relief Committee

Michael Quinn (Term to Expire: 01/31/2028)

Jim Munsey (Term to Expire: 01/31/2028)

ATTACHMENTS:

Type	File Name	Description
▢ Reference Material	Quinn_M_Munsey_J_Elderly_Disabled_Tax_Relief_reapp_mtg_ltr.pdf	Reference

OFFICE OF THE SELECT BOARD

STEPHEN W. DECOURCEY, CHAIR
DIANE M. MAHON, VICE CHAIR
JOHN V. HURD
LENARD T. DIGGINS
ERIC D. HELMUTH



730 MASSACHUSETTS AVENUE
TELEPHONE 781-316-3020
FAX 781-316-3029

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

March 12, 2025

Michael Quinn
15 Shawnee Road
Arlington, MA 02476

Re: Reappointment: Elderly and Disabled Tax Aid Relief Fund Committee

Dear Michael:

Please be advised that the Select Board will be discussing your reappointment to the Elderly and Disabled Tax Aid Relief Fund Committee at their meeting conducted via hybrid format on Monday, March 17th at 7:15pm. Although it is not a requirement that you attend this meeting, you are invited to do so.

The meeting will take place in the Select Board Chambers. The link to the meeting and other information will be available at the bottom of the Select Board Agenda, as well as on the Town Calendar, where the meeting will be posted on Thursday, March 13, 2025, by 7:00pm.

Please contact this office by e-mail, sbadmin@town.arlington.ma.us, if you have any questions.

Thank you.

Very truly yours,
SELECT BOARD

A handwritten signature in cursive script, appearing to read "Caroline Kalogeropoulos".

Caroline Kalogeropoulos
Administrative Assistant

OFFICE OF THE SELECT BOARD

STEPHEN W. DECOURCEY, CHAIR
DIANE M. MAHON, VICE CHAIR
JOHN V. HURD
LENARD T. DIGGINS
ERIC D. HELMUTH



730 MASSACHUSETTS AVENUE
TELEPHONE 781-316-3020
FAX 781-316-3029

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

March 12, 2025

James Munsey
215 Massachusetts Avenue, #25
Arlington, MA 02474

Re: Reappointment: Elderly and Disabled Tax Aid Relief Fund Committee

Dear James:

Please be advised that the Select Board will be discussing your reappointment to the Elderly and Disabled Tax Aid Relief Fund Committee at their meeting conducted via hybrid format on Monday, March 17th at 7:15pm. Although it is not a requirement that you attend this meeting, you are invited to do so.

The meeting will take place in the Select Board Chambers. The link to the meeting and other information will be available at the bottom of the Select Board Agenda, as well as on the Town Calendar, where the meeting will be posted on Thursday, March 13, 2025, by 7:00pm.

Please contact this office by e-mail, sbadmin@town.arlington.ma.us, if you have any questions.

Thank you.

Very truly yours,
SELECT BOARD

A handwritten signature in cursive script, appearing to read "Caroline Kalogeropoulos".

Caroline Kalogeropoulos
Administrative Assistant



Town of Arlington, Massachusetts

Banner Design Update for Arlington's 250th Commemoration

Summary:


Cecily Miller, Arlington Commission for Arts & Culture

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Amended_250_Banner_Request.pdf	Banner Amended Request
▢	Reference Material	revised_massachusett_banner.pdf	Updated Banner Design

Amended Banner approval request

From Cecily Miller <cecily.apa@gmail.com>
Date Thu 3/13/2025 2:32 PM
To Ashley Maher <amaher@town.arlington.ma.us>
Cc Katie Luczai <kluczai@town.arlington.ma.us>

 1 attachment (86 KB)
indigenous_banner_draft.pdf;

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hi Ashley,
the selectboard approved all our "Plants, People and Revolution" banners for the 250th commemoration. Katie has, as you know, requested an extension for the display through May 31. I have one other change to propose for approval. At the request of our consultant from the Massachusetts Tribal Council, we would like to add the attached banner design. It doesn't change the total number, as I was planning to duplicate one of the banners; this will replace the duplicate. It incorporates part of the Town's land acknowledgement and an emblem provided by the council. Katie has reviewed it and requested I send it to you today.

Can you possibly get this reviewed Monday night so I can add it to the production of the other banners?

Thank you,
Cecily

Cecily Miller
Curator, Public Art and Community Engagement
Arlington Commission for Arts & Culture
www.ArtsArlington.org
617.331.1715

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ArtsArlington.org



Town of Arlington, Massachusetts

Acceptance: Boston MPO Community Connections Grant

Summary:

John Alessi, Senior Transportation Planner

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Boston_MPO_Grant_-_Bike_Racks_- _Acceptance_Memo.pdf	Memo from Planning Department



TOWN OF ARLINGTON
DEPARTMENT OF PLANNING and
COMMUNITY DEVELOPMENT

TOWN HALL, 730 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS 02476
TELEPHONE 781-316-3090

MEMORANDUM

To: Members of the Arlington Select Board

CC: Jim Feeney, Town Manager
Claire V. Ricker, Director, DPCD
Michael Cunningham, Town Counsel
Jaclyn Munson, Deputy Town Counsel

From: John Alessi, Senior Transportation Planner, DPCD

Date: March 12, 2025

RE: Acceptance of Boston MPO Community Connections Program Grant Funds

This memorandum summarizes the request to approve the acceptance of \$72,702 in grant funds from the Boston MPO's Community Connections Program to expand bike racks throughout Arlington.

The Department of Planning & Community Development (DPCD) in 2024 was awarded a Boston Metropolitan Planning Organization (MPO) Community Connections Grant in the amount of \$72,702 to procure and install approximately 121 bike racks (242 spaces total) at schools, parks, fields, and playgrounds for its Bike Rack Expansion Project. The grant funds represent an 80% federal contribution for the total project cost (\$90,878) with the Town providing a 20% local match in the amount of \$18,176. Funding for the 20% local match has already been appropriated for the purpose of expanding bike racks in Arlington.

Pursuant to M.G.L. Ch. 44 s. 53A, grants received by the Town from the Commonwealth are required to be approved by the Select Board and expended for the purposes for which they were granted. Based on this requirement, the requested actions of the Board is to accept the receipt of these grant funds from the Boston MPO's Community Connections Program to be expended for the purpose granted.

Amount	Received	Use	Source	Department
\$72,702	Grant Awarded in 2024, Funding Available in 2025	Purchase of approximately 121 bike racks and the installation of concrete pads as needed	Grant awarded through the Boston MPO, with MassDOT as the contracting agency	Department of Planning & Community Development



Town of Arlington, Massachusetts

Approval: Arlington/Newton Memorandum of Agreement for MPO Community Connections Grant

Summary:

John Alessi, Senior Transportation Planner

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Arlington_Newton_MOA_Approval_Memo.pdf	MOA Approval



TOWN OF ARLINGTON
DEPARTMENT OF PLANNING and
COMMUNITY DEVELOPMENT

TOWN HALL, 730 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS 02476
TELEPHONE 781-316-3090

MEMORANDUM

To: Members of the Arlington Select Board

CC: Jim Feeney, Town Manager
Claire V. Ricker, Director, DPCD
Michael Cunningham, Town Counsel
Jaclyn Munson, Deputy Town Counsel

From: John Alessi, Senior Transportation Planner, DPCD

Date: March 12, 2025

RE: Approval of Arlington/Newton MOA

This memorandum summarizes the request to approve an MOA between the Town of Arlington and the City of Newton needed to administer a joint Boston MPO Community Connections grant.

The Department of Planning & Community Development (DPCD) in 2021 was awarded a joint Boston Metropolitan Planning Organization (MPO) Community Connections Grant in the amount of \$272,000 alongside the Cities of Watertown and Newton to expand Bluebikes stations in all three municipalities. This was a joint grant request in which each municipality would receive up to \$90,000 in federal funding as part of the grant. The federal funding represents an 80% contribution for the total project costs, and each municipality must contribute a 20% local match.

The Town of Arlington is the lead recipient of the grant agreement with MassDOT, and the Cities of Watertown and Newton are sub-recipients. Although this is a Boston MPO Grant, MassDOT is the contracting agency. With Arlington as the lead recipient, each municipality will pay upfront the costs of their respective Bluebikes capital projects, and based on each municipality's total project cost, the Town of Arlington will then reimburse the sub-recipients up to \$90,000 (max 80% contribution) through the total grant amount (\$272,000). This process has been set up through two separate Memorandums of Agreement with the Cities of Watertown and Newton. These agreements fall under M.G.L Ch. 40 s. 4A because this is an infrastructure grant effectuated by governmental units that statutorily requires an authorizing vote by the Select Board before the Town Manager can execute signatures. The Board already voted at its September 23, 2024 meeting to approve the MOA between the Town and the City of Watertown. The Town's MOA with the City of Newton has now been signed by their Mayor and is ready for approval by the Arlington Select Board.

Based on the requirements of both M.G.L. Ch. 44 s. 53A and M.G.L Ch. 40 s. 4A, the requested action of the Board is to approve the enclosed MOA between the Town of Arlington and the City of Newton.

Enclosure

**MEMORANDUM OF AGREEMENT
BY AND BETWEEN
THE TOWN OF ARLINGTON
and
THE CITY OF NEWTON**

This memorandum of agreement (this “MOA” or “Agreement”) is made as of _____, 2025 (the “Effective Date”) in accordance with M.G.L. c. 40, sec. 4A, by and between the TOWN OF ARLINGTON (the “Recipient”), and the CITY OF NEWTON (the “Sub-recipient”) (collectively, the “Parties”).

RECITALS

WHEREAS, the Commonwealth of Massachusetts, by and through its Department of Transportation has awarded to the Town of Arlington and the cities of Watertown and Newton a grant to purchase, install and operate up to 8-9 Blue Bikes share stations; and

WHEREAS, the Recipient shall be serving as the lead contracting agency of said grant; and

WHEREAS, the Parties agree to work together to administer the grant funds for the purpose for which it was awarded and to cooperate accordingly; and

WHEREAS, the Parties have agreed that the Recipient shall reimburse the Sub-recipient for costs incurred in accordance with expenditures under the grant; and

WHEREAS, this Agreement has been approved in accordance with the provisions of G.L. c. 40, sec. 4A, by vote of the Town of Arlington Select Board, and by approval of the Mayor of Newton.

NOW THEREFORE, The Parties agree as follows:

1. **Purpose**. This Agreement shall be effectuated pursuant to the following:
 - a. The Commonwealth of Massachusetts, by and through its Department of Transportation (“MassDOT”) has awarded to the Town of Arlington and the Cities of Watertown and Newton (the “Municipalities”) a grant to purchase, install and operate 8-9 Blue Bikes share stations (the “Grant”).
 - b. The Parties agree that the Recipient shall serve as the lead contracting agency for purposes of administering Grant funds (the “Grant Funds”), totaling Two Hundred and Seventy-Two Thousand (\$272,000) dollars.
2. **Term**. This Agreement shall begin on the Effective Date and shall terminate when the Grant Funds have been expended or until such time as set forth by any contract documents governing the Grant and Grant Funds (the “State Contract Documents”), whichever occurs

sooner. Unless otherwise stated, the Parties' obligations under this Agreement shall extinguish upon its termination.

3. **Obligations of the Recipient.** The Recipient, as the lead contracting agency for the Grant and Grant Funds, hereby agrees to:
 - a. As further described in Section 5 of this Agreement, administer the Grant Funds to the Sub-recipient in the form of a reimbursement upon receipt of any invoices submitted to the Recipient by the Sub-recipient for equipment purchased in accordance with the Grant; and
 - b. Oversee the Grant and Grant Funds administration which may include but is not limited to: procurement, invoicing, reimbursement, or any other actions that may require it to act in accordance with the Grant.
4. **Obligations of the Sub-Recipient.** The Sub-recipient, as an awardee to the Grant, hereby agrees to:
 - a. Work cooperatively with the Recipient and all Municipalities to effectuate the purpose of the Grant; and
 - b. Procure with its own monies any equipment required by Sub-recipient to fulfill its obligations under this Agreement and the Grant; and
 - c. Submit invoices to the Recipient for equipment purchased in accordance with the Grant and described in Section 4(b) above; and
 - d. Accept responsibility for any local coordination and implementation of the Blue Bike share elements within its jurisdiction and in accordance with the terms and conditions of the Grant.
5. **Reimbursement.** The Recipient shall reimburse the Sub-recipient in a sum up to its Grant Funds of Ninety Thousand Six Hundred Sixty-Six Dollars and Sixty-Seven Cents (\$90,666.67). Nothing herein shall require the Recipient to reimburse the Sub-recipient for costs incurred in excess of the Sub-recipient's Grant Funds. Reimbursements and corresponding documents shall be maintained in accordance with the Commonwealth's Municipal Retention Schedule.
6. **Local Match.** The Sub-recipient agrees to contribute a local match of Twenty percent (20%) of the total cost to purchase, install and operate Blue Bikes share stations and bicycles in Newton, up to Twenty-Two Thousand Six Hundred and Sixty-Seven (\$22,667) dollars (the "Local Match").
7. **Notices.** Notices made under this Agreement shall be made to the following parties:

As to Recipient:

Town Manager, Town of Arlington
c/o John Alessi, Senior Transportation Planner

740 Massachusetts Avenue
Arlington, MA 02476

With a copy to:

Town Counsel, Town of Arlington
50 Pleasant Street
Arlington, MA 02476

As to Sub-recipient:

Mayor, City of Newton
c/o Nicole Freedman, Transportation Planning Coordinator
1000 Commonwealth Ave
Newton, MA 02459

With a copy to:

City Solicitor, City of Newton
1000 Commonwealth Ave
Newton, MA 02459

8. **Governing Law:** This Agreement shall be interpreted, enforced, governed, and construed by, under, and in accordance with the laws of the Commonwealth of Massachusetts.
9. **Entirety of Agreement:** The parties acknowledge that this Agreement constitutes the Parties' entire agreement with respect to the subject matter hereof and supersedes all prior agreements or promises, whether oral or written, with respect to the subject matter hereof. This Agreement may not be amended, altered or modified except by a writing signed by the parties.
10. **Severability:** If any term(s) or provision(s) of this Agreement shall be held to be invalid or unenforceable for any reason by a court of competent jurisdiction, the validity or enforceability of the remaining terms and provisions shall not be affected, and such invalid and/or unenforceable term(s) and/or provision(s) shall be deemed modified to the extent necessary to make it or them enforceable.
11. **Reservation of Rights:** The Parties agree that the purpose of this Agreement is to transfer funding solely for the purposes set forth above, and nothing herein shall create a binding precedent regarding reimbursements.
12. **Incorporation by Reference.** The Parties agree and acknowledge that the State Contract Documents are incorporated by reference into this agreement and are part of the entire Agreement in accordance with Section 7 of this Agreement.

[Signature page follows. Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed, sealed and delivered by their respective duly authorized representatives, as of the date first written above.

CITY OF NEWTON

TOWN OF ARLINGTON

Mayor
By: Ruthanne Fuller
Digitally signed by Mayor
Ruthanne Fuller
Date: 2025.03.09 10:51:31 -04'00'

By: _____
James Feeney, Town Manager
Date: _____

APPROVED AS TO FORM:

APPROVED AS TO FORM:

Jennifer M. Wilson
Digitally signed by Jennifer M. Wilson
Date: 2025.03.04 10:42:53 -05'00'

Town Counsel



Town of Arlington, Massachusetts

Confirmation Vote: Affirm License Granted to Owner of 125 Broadway in 1972

Summary:

Michael Cunningham, Town Counsel

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	License_125_Broadway.pdf	License
▢	Reference Material	1972_Minutes_-_Broadway.pdf	1972 Select Board Minutes



The Commonwealth of Massachusetts

Town of Arlington

License

Massachusetts General Law, Chapter 148 § 13

A license is hereby granted to use the land herein described for the purpose(s) described.

Location of Land: 125 Broadway

Owner of Land: 125 Broadway Realty Trust

As approved at a hearing on June 27, 1972 at which all previous licenses for the named property were revoked, a license is issued on June 27, 1972 for the purpose described below and subject to the maximum storage listed below.

Purpose approved:

Use as a public filling and service station, and for the storage, keeping and sale in and from underground tanks of volatile inflammable fluid; and the storage and keeping and sale in and from aboveground containers of petroleum products; and to occupy and use the building for the storage and keeping of two motor vehicles and the gasoline or oil contained therein.

Quantities approved:

Total capacity of 31,100 gallons

Underground: Three tanks of 10,000 gallons each, two for the storage of regular gasoline and one for the storage of premium gasoline, and 550 gallons of fuel oil and 550 gallons of waste oil.

Aboveground: Up to 1000 gallons of lubricating oils, anti-freeze mixtures, and other petroleum products.

Notes or Additional Requirements:

The license or a certified copy must be posted at all times on the land for which it is granted.

All provisions of Chapter 148 of the General Laws will be followed.

Given under our hands this _____ day of _____, 2025.

SELECT

BOARD

OF THE

TOWN OF

ARLINGTON

A recessed hearing was held on the application of Chelsea Terminal, Inc. for a license to use the parcel of land situated on the northeasterly side of Broadway (#125), on which a one story building of second class construction is situated thereon, as shown upon plan submitted, for use as a public filling and service station, and for the storage, keeping and sale in and from underground tanks of volatile inflammable fluid of a total capacity of 31,100 gallons, in three (3) tanks of 10,000 gallons capacity each, two of which will be limited to the storage of regular gasoline, and one of which will be limited to the storage of premium gasoline; with three (3) pumps; of waste oil of 550 gallons capacity; of fuel oil of 550 gallons capacity; for the storage and keeping and sale in and from aboveground containers of lubricating oils, anti-freeze mixtures and other petroleum products of 1,000 gallons capacity; and to occupy and use the building for the storage and keeping of two (2) motor vehicles and the gasoline and other oils contained therein; all in accordance with the provisions of Chapter 148 of the General Laws.

The following persons were present:

T. A. Morton	139 Broadway, Arlington
W. H. Larson	P. O. Box 166, Melrose, Mass.

After a brief discussion by the Board and after a review of the architectural plans of the proposed building, on a motion of Mr. Saul, seconded by Mr. McCabe, it was voted

Re Application for
use of land --
Chelsea Terminal, Inc
granted

6/27/72

That the license be and hereby is granted subject to work being completed according to the approved plans revised as of March 17, 1970 and with the following conditions:

1. Hours of operation 6:00 A. M. to 11:00 P. M.
2. No tin knocking or major repair work to be performed

Re Boston Transportation Planning Review Study

The communication from Alan Altshuler, Secretary, Executive Office of Transportation and Construction, relative to the Boston Transportation Planning Review Study, was taken from the table and filed.

The meeting adjourned at 9:30 P. M., Tuesday, June 27, 1972.

A true record.

Attest:

Secretary



Town of Arlington, Massachusetts

For Approval: Package Store License DBA Name Change

Summary:

Roshani 1 Enterprise D/B/A Mass Ave Wine and Spirits, Vinod Chandra Zaveri, 137 Massachusetts Avenue

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	Mass_Ave_Wine_DBA_Change_Application.pdf	Application
▢	Reference Material	Mass_Ave_Wine_and_Spirits_Inspection_Reports.pdf	Inspection Reports



The Commonwealth of Massachusetts
Alcoholic Beverages Control Commission
95 Fourth Street, Suite 3, Chelsea, MA 02150-2358
www.mass.gov/abcc

**RETAIL ALCOHOLIC BEVERAGES LICENSE APPLICATION
MONETARY TRANSMITTAL FORM**

APPLICATION FOR AMENDMENT-Change of Business Entity Information

DO NOT MAKE PAYMENT OR COMPLETE THIS FORM FOR CHANGE OF DBA AMENDMENT

APPLICATION SHOULD BE COMPLETED ON-LINE, PRINTED, SIGNED, AND SUBMITTED TO THE LOCAL
LICENSING AUTHORITY.

ECRT CODE: RETA

Please make \$200.00 payment here: ABCC PAYMENT WEBSITE

**PAYMENT MUST DENOTE THE NAME OF THE LICENSEE CORPORATION, LLC, PARTNERSHIP, OR INDIVIDUAL AND INCLUDE THE
PAYMENT RECEIPT**

ABCC LICENSE NUMBER (IF AN EXISTING LICENSEE, CAN BE OBTAINED FROM THE CITY)

89683 PK 0030

ENTITY/ LICENSEE NAME ROSHANI 1 ENTERPRISE

ADDRESS 137 MASS AVE

CITY/TOWN ARLINGTON

STATE MA

ZIP CODE 02474

For the following transactions (Check all that apply):

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> New License | <input type="checkbox"/> Change of Location | <input type="checkbox"/> Change of Class (i.e. Annual / Seasonal) | <input type="checkbox"/> Change Corporate Structure (i.e. Corp / LLC) |
| <input type="checkbox"/> Transfer of License | <input type="checkbox"/> Alteration of Licensed Premises | <input type="checkbox"/> Change of License Type (i.e. club / restaurant) | <input type="checkbox"/> Pledge of Collateral (i.e. License/Stock) |
| <input type="checkbox"/> Change of Manager | <input type="checkbox"/> Change Corporate Name | <input type="checkbox"/> Change of Category (i.e. All Alcohol/Wine, Malt) | <input type="checkbox"/> Management/Operating Agreement |
| <input type="checkbox"/> Change of Officers/
Directors/LLC Managers | <input type="checkbox"/> Change of Ownership Interest
(LLC Members/ LLP Partners,
Trustees) | <input type="checkbox"/> Issuance/Transfer of Stock/New Stockholder | <input type="checkbox"/> Change of Hours |
| | <input type="checkbox"/> Other <u> </u> | <input checked="" type="checkbox"/> Change of DBA | |

**THE LOCAL LICENSING AUTHORITY MUST MAIL THIS
TRANSMITTAL FORM ALONG WITH
COMPLETED APPLICATION, AND SUPPORTING DOCUMENTS TO:**

**Alcoholic Beverages Control Commission
95 Fourth Street, Suite 3
Chelsea, MA 02150-2358**



The Commonwealth of Massachusetts
Alcoholic Beverages Control Commission
95 Fourth Street, Suite 3, Chelsea, MA 02150-2358
www.mass.gov/abcc

APPLICATION FOR AMENDMENT-Change of Business Entity Information

☐ **Change of Corporate Name**

☒ **Change of DBA**

- Payment Receipt (Req. for Chg of Corp Name only)
- Monetary Transmittal Form
- DOR Certificate of Good Standing (Req. for Chg of Corp Name only)
- DUA Certificate of Compliance (Req. for Chg of Corp Name only)
- Change of Corporate Name/DBA Application
- Vote of the Entity
- Business Structure Documents
 - If Sole Proprietor, **Business Certificate**
 - If partnership, **Partnership Agreement**
 - If corporation or LLC, **Articles of Organization** from the Secretary of the Commonwealth

☐ **Change of Corporate Structure**

- Payment Receipt
- Monetary Transmittal Form
- DOR Certificate of Good Standing
- DUA Certificate of Compliance
- Change of Corporate Structure Application
- Vote of the Entity
- Business Structure Documents
 - If Sole Proprietor, **Business Certificate**
 - If partnership, **Partnership Agreement**
 - If corporation or LLC, **Articles of Organization** from the Secretary of the Commonwealth

1. BUSINESS ENTITY INFORMATION

Entity Name	Municipality	ABCC License Number
ROSHANI 1 ENTERPRISE INC	ARLINGTON	8963-PK-0030

Please provide a narrative overview of the transaction(s) being applied for.

CHANGING D/B/A

APPLICATION CONTACT

The application contact is the person who should be contacted with any questions regarding this application.

Name	Title	Email	Phone
VINOD CHANDRA ZAVERI	OWNER		

2. CHANGES TO BUSINESS ENTITY INFORMATION

2a. Change of Corporate Name

Last-Approved Corporate Name:

Requested New Corporate Name:

2b. Change of DBA

Last-Approved DBA:

Requested New DBA:

2c. Change of Corporate Structure

LLC, Corporation, Sole Proprietor, etc

Last-Approved Corporate Structure

Requested New Corporate Structure

Signature:

Date: 01/03/25

Title: OWNER

APPLICANT'S STATEMENT

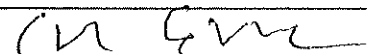
I, VINOD CHANDRA ZAVERI the: ☐ sole proprietor; ☐ partner; ☒ corporate principal; ☐ LLC/LLP manager
Authorized Signatory
of ROSHANI ENTERPRISES INC
Name of the Entity/Corporation

hereby submit this application (hereinafter the "Application"), to the local licensing authority (the "LLA") and the Alcoholic Beverages Control Commission (the "ABCC" and together with the LLA collectively the "Licensing Authorities") for approval.

I do hereby declare under the pains and penalties of perjury that I have personal knowledge of the information submitted in the Application, and as such affirm that all statements and representations therein are true to the best of my knowledge and belief. I further submit the following to be true and accurate:

- (1) I understand that each representation in this Application is material to the Licensing Authorities' decision on the Application and that the Licensing Authorities will rely on each and every answer in the Application and accompanying documents in reaching its decision;
- (2) I state that the location and description of the proposed licensed premises are in compliance with state and local laws and regulations;
- (3) I understand that while the Application is pending, I must notify the Licensing Authorities of any change in the information submitted therein. I understand that failure to give such notice to the Licensing Authorities may result in disapproval of the Application;
- (4) I understand that upon approval of the Application, I must notify the Licensing Authorities of any change in the ownership as approved by the Licensing Authorities. I understand that failure to give such notice to the Licensing Authorities may result in sanctions including revocation of any license for which this Application is submitted;
- (5) I understand that the licensee will be bound by the statements and representations made in the Application, including, but not limited to the identity of persons with an ownership or financial interest in the license;
- (6) I understand that all statements and representations made become conditions of the license;
- (7) I understand that any physical alterations to or changes to the size of the area used for the sale, delivery, storage, or consumption of alcoholic beverages, must be reported to the Licensing Authorities and may require the prior approval of the Licensing Authorities;
- (8) I understand that the licensee's failure to operate the licensed premises in accordance with the statements and representations made in the Application may result in sanctions, including the revocation of any license for which the Application was submitted; and
- (9) I understand that any false statement or misrepresentation will constitute cause for disapproval of the Application or sanctions including revocation of any license for which this Application is submitted.
- (10) I confirm that the applicant corporation and each individual listed in the ownership section of the application is in good standing with the Massachusetts Department of Revenue and has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting of child support.

Signature:



Date:

01/03/25

Title:

OWNER

ENTITY VOTE

The Board of Directors or LLC Managers of

ROSHANI 1 ENTERPRISES INC

Entity Name

duly voted to apply to the Licensing Authority of

ARLINGTON

City/Town

and the

Commonwealth of Massachusetts Alcoholic Beverages Control Commission on

Date of Meeting

For the following transactions (Check all that apply):

- ☐ Change Corporate Name
- ☐ Change Corporate Structure (i.e. Corp / LLC)
- ☒ Change of DBA
- ☐ Other

"VOTED: To authorize

VINOD CHANDRA ZAVERI

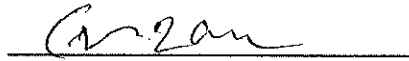
Name of Person

to sign the application submitted and to execute on the Entity's behalf, any necessary papers and do all things required to have the application granted."

A true copy attest,

For Corporations ONLY

A true copy attest,



Corporate Officer /LLC Manager Signature

Corporation Clerk's Signature

VINOD CHANDRA ZAVERI

(Print Name)

(Print Name)



Office of the Select Board
Licensing Board for the Town of Arlington
Town Hall, 730 Massachusetts Avenue, Arlington, Massachusetts 02476
Telephone: (781)316-3020 |Email:

INSPECTION REPORT FORM

NAME OF ESTABLISHMENT:

Mass Ave Wine and Spirits

ADDRESS:

137 Mass. Ave.

NAME OF APPLICANT:

Vinod Chandra Zaveri

TYPE OF LICENSE:

Package Store DBA Name Change

(Formerly Giles Wine and Spirits)

REPORT DUE BY:

Wednesday February 19, 2025

DEPARTMENTAL REPORT SECTION

DEPARTMENT: Arlington Police Department

AFTER REVIEWING THE ABOVE APPLICANT, WE HAVE:

☒ No Comments or Concerns

☐ Comments

☐ Concerns

☐ Objections

APPLICANT SIGNATURE SECTION

I have received the above report and acknowledge said inspection. I fully understand that no work is to commence at the premises of the proposed location of which is the subject matter of this inspection report until the license is approved by the Select Board; furthermore, any work done is done at the applicant's risk.

Signature: *Vinod Zaveri*

Date: 3/5/25



Office of the Select Board
Licensing Board for the Town of Arlington
Town Hall, 730 Massachusetts Avenue, Arlington, Massachusetts 02476
Telephone: (781)316-3020 |Email: selectboard@arlingtonma.gov

INSPECTION REPORT FORM

NAME OF ESTABLISHMENT:

Mass Ave Wine and Spirits

ADDRESS:

137 Mass. Ave.

NAME OF APPLICANT:

Vinod Chandra Zaveri

TYPE OF LICENSE:

Package Store DBA Name Change

(Formerly Giles Wine and Spirits)

REPORT DUE BY:

Wednesday February 26, 2025

DEPARTMENTAL REPORT SECTION

DEPARTMENT: Inspectional Services

AFTER REVIEWING THE ABOVE APPLICANT, WE HAVE:

☒ No Comments or Concerns

☐ Comments

☐ Concerns

☐ Objections

APPLICANT SIGNATURE SECTION

I have received the above report and acknowledge said inspection. I fully understand that no work is to commence at the premises of the proposed location of which is the subject matter of this inspection report until the license is approved by the Select Board; furthermore, any work done is done at the applicant's risk.

Signature: *Vinod Chandra Zaveri*

Date: 3/5/25



Office of the Select Board
Licensing Board for the Town of Arlington
Town Hall, 730 Massachusetts Avenue, Arlington, Massachusetts 02476
Telephone: (781)316-3020 |Email: selectboard@arlingtonma.gov

INSPECTION REPORT FORM

NAME OF ESTABLISHMENT:

Mass Ave Wine and Spirits

ADDRESS:

137 Mass. Ave.

NAME OF APPLICANT:

Vinod Chandra Zaveri

TYPE OF LICENSE:

Package Store DBA Name Change

(Formerly Giles Wine and Spirits)

REPORT DUE BY:

Wednesday February 26, 2025

DEPARTMENTAL REPORT SECTION

DEPARTMENT: Planning & Community Development

AFTER REVIEWING THE ABOVE APPLICANT, WE HAVE:

☒ No Comments or Concerns

☐ Comments

☐ Concerns

☐ Objections

APPLICANT SIGNATURE SECTION

I have received the above report and acknowledge said inspection. I fully understand that no work is to commence at the premises of the proposed location of which is the subject matter of this inspection report until the license is approved by the Select Board; furthermore, any work done is done at the applicant's risk.

Signature: *Vinod Zaveri*

Date: 3/5/25



Town of Arlington, Massachusetts

Update: Park Avenue

Summary:

Jim Feeney, Town Manager

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	APD_Thank_You.pdf	Letter of Appreciation

Jacy Edelman
12 Lorne Road
Arlington, MA 02476

March 12, 2025

Chief Juliann Flaherty
Arlington Police Department
112 Mystic Street
Arlington, MA 02474

Subject: Commitment to Traffic Safety in Arlington

Dear Chief Flaherty,

We, the undersigned residents of the Town of Arlington, are writing to express our collective gratitude for the Arlington Police Department's commitment to making our streets safer for everyone.


As an Arlington resident and parent of a Gibbs Middle School student, I have been consistently concerned about pedestrian safety. Like many in our community, I was deeply saddened by the recent accidents and the tragic death of our neighbor, Harlan Cuklanz—all of which occurred in crosswalks. These incidents have reinforced the urgent need for continuous focus on traffic safety.

On behalf of my fellow Arlington residents, particularly those residing along the Park Avenue corridor and Arlington Heights neighborhoods, we deeply appreciate the Department's increased attention to traffic safety. The recent uptick in Arlington Police patrols has been duly noticed and welcomed by drivers, bicyclists, and pedestrians alike.

While these efforts have been a step in the right direction, we urge the Department to sustain and expand these initiatives through ongoing enforcement, community education, and potential additional safety measures such as enhanced signage, improved lighting, or speed monitoring in collaboration with the town's Select Board, Traffic Advisory Committee (TAC), and engaged residents.

We appreciate the dedication and service of the Arlington Police Department and look forward to collaborating on long-term solutions to ensure safer streets for all.

With sincere appreciation,



Jacy Edelman, on behalf of the enclosed community supporters

cc:

Jim Feeney, Town Manager
Ashley Maher, Select Board Administrator

(enclosure)

Community Supporters:

Resident Name:	Address:
Kathryn Sievers	36 Sutherland Rd
Katherine Einstein	22 Sutherland Road
Katharine Radville	106 Paul Revere Road
Sarah Bjorkman	116 Hillside Avenue
Heather Thomas	31 Argyle Road
Lauren Sheik	103 Paul Revere Road
Robert Sheik	103 Paul Revere Road
John Lewis	1426 Mass Ave
Rachel Lewis	1426 Mass Ave
Deborah Forst	51 Sutherland Rd.
Jason Gonzalez	51 Sutherland Rd.
Emily Cause	21 Kilsythe Road
Marc Levine	26 Kilsythe Road
Jayne Byrne	7 Argyle Road
Timothy Orcutt	7 Argyle Road
Eric Handler	47 Sutherland Road
Shannon Handler	47 Sutherland Road
Mary Rowen Horgan	95A Paul Revere Road
Mike Horgan	95A Paul Revere Road
Dagmar Jacisinova	97 Paul Revere Road
Kasey Nupp	44 Argyle Road
Joe Pereira	95 Paul Revere Road
Matthew Brown	10 Argyle Rd
Jill Brown	10 Argyle Rd
Jen Gilbert	22 Inverness Rd
Ezekiel Wheeler	85 Paul Revere Rd
Anastasia Wheeler	85 Paul Revere Rd

Sarah Bixler	27 Argyle Road
Kate Bare	101 Paul Revere Road
Harvey S. Lee	100 Paul Revere RD
Nicholas Urie	36 Sutherland Road
Jessica Colarusso	37 Argyle Rd.



Town of Arlington, Massachusetts

Statement of Interest in the MSBA's Accelerated Repair Program

Summary:

Alex Magee, Deputy Town Manager

ATTACHMENTS:

Type	File Name	Description
▢ Reference Material	Memo.pdf	Memo
▢ Reference Material	MSBA_HeatPumps_Presentation.pdf	Presentation
▢ Reference Material	Climate_Leaders_Roadmap_Arlington_Final.pdf	Climate Leaders Roadmap
▢ Reference Material	Arlington_Public_Schools_HVAC_and_Electrical_Study_-_Hardy.pdf	APS HVAC and Electrical Study - Hardy
▢ Reference Material	Electrification_and_Air_Quality_Master_Plan.pdf	Electrification and Air Quality Master Plan
▢ Reference Material	SOI_Vote_Language.pdf	SOI Vote Language



TOWN OF ARLINGTON
DEPARTMENT OF PLANNING and
COMMUNITY DEVELOPMENT

TOWN HALL, 730 MASSACHUSETTS AVENUE
ARLINGTON, MASSACHUSETTS 02476
TELEPHONE 781-316-3090

MEMORANDUM

To: Stephen DeCoursey, Chair, Arlington Select Board
Cc: Jim Feeney, Town Manager
Dr. Elizabeth Homan, Superintendent, Arlington Public Schools
Francis Gorski, Assistant Superintendent of Finance & Operations, Arlington Public Schools
Claire Ricker, Director, Planning and Community Development
Robert Jefferson, Interim Facilities Director
From: Alex Magee, Deputy Town Manager/Finance Director
Talia Fox, Sustainability Manager, Planning and Community Development
Date: March 13, 2025
RE: MSBA Accelerated Repair Program Statement of Interest for Heat Pump Conversion

The Arlington Select Board is asked to authorize the Superintendent of Schools to submit a Statement of Interest ("SOI") for the Massachusetts School Building Authority ("MSBA") Accelerated Repair Program ("ARP"). Administrators and staff from a collaborative Town/School team have identified the Hardy Elementary School as eligible for the ARP's new heat pump conversion project category. The team is excited by the potential to secure substantial funding to upgrade capital assets while furthering progress toward townwide electrification goals. This memorandum provides context for this request and details on the ARP process and potential project.

Background

Arlington has committed to achieving net zero greenhouse gas ("GHG") emissions by 2050. In pursuit of this goal, the Town's Net Zero Action Plan ("NZAP") prioritizes the electrification of all fossil-fuel uses at municipal buildings, including schools. In December 2024, the School Committee and Select Board adopted a Decarbonization Roadmap ("Roadmap" – Appendix A). This Roadmap identifies specific GHG emissions reduction strategies that will enable the Town to achieve local goals while also meeting interim targets established by the MA Department of Energy Resources ("DOER"). The Roadmap includes a timeline for electrification of heating systems in school buildings, based on when existing fossil-fuel systems will reach the end of their useful life, as well as opportunities to introduce clean energy technologies. To achieve the Town's goals, the Roadmap recommends that the Hardy elementary school be fully electric by 2030.

The Town acknowledges that the cost to electrify buildings will be substantial. The Capital Planning Committee has encouraged the Town to pursue all available funding through MSBA, DOER, the MA Clean Energy Center, utilities, and federal agencies to supplement existing capital plan allowances for boiler and rooftop unit replacements. Recently, to facilitate achievement of the Commonwealth's net zero GHG emissions goals, the MSBA has introduced heat pumps for heating and cooling as eligible projects under the ARP. The ARP will have a biennial SOI opening (every two years), and projects awarded under this ARP cycle are expected to complete work by summer 2029. Accordingly, the Arlington Public Schools ("the District") should take advantage of this year's SOI opening to attempt to secure funding from the MSBA for heat pumps, which would help to achieve

the 2030 electrification goal at Hardy. Per the terms of the ARP application process, the School Committee and Select Board must vote to approve the Superintendent's submission of an SOI.

Overview of the ARP Program

Established in 2012, the MSBA ARP focuses on the preservation of existing assets through energy-efficiency and cost-saving upgrades for school districts. The ARP process is based on an "accelerated" model, through which the MSBA completes much of the administrative legwork ahead of time so projects can proceed quickly if they are invited into the program. For example, the MSBA assigns an Owner's Project Manager ("OPM") and Architect to each project invited into the program, simplifying procurement. The ARP is distinct from the Core Program, and districts may submit one SOI per school to either program. Submitting an SOI to the ARP does not affect the District's ability to submit an SOI for the Core Program for a different school. Like the Core Program, the ARP is funded through a 1% statewide sales tax. The District has never applied to participate in the ARP.

The ARP is a competitive grant program with three categories for the current two-year cycle: roof repair or replacement, heat pump conversion, and windows/doors. The team has reviewed several potential projects for all three categories, but due to the age of building components at other schools and demands of various planned capital projects, only the Hardy heat pump conversion was both eligible and feasible.

Arlington's SOI will be considered against all SOIs submitted in the heat pump conversion category. For this funding cycle, MSBA has dedicated \$250 million to heat pump projects. As part of its initial "due diligence process," the MSBA will review all SOI submissions for completeness; review accompanying documents; conduct site visits; and ultimately, make recommendations for which projects should be invited into the ARP program. Awards are typically made at the fall board meeting of the MSBA, so the Town could expect to know whether it is selected by fall 2025.

Should the District's SOIs be invited into the ARP, the District will need to appropriate funds for the feasibility study/schematic design phase within 90 days. Costs associated with this phase have recently ranged from \$50,000 to \$100,000. Within 12 months of invitation, assuming the project moves successfully through the feasibility study/schematic design phase, an appropriation would need to be made to cover the full cost of the project. The District could withdraw from the process at this point without penalty.

Similar to the MSBA Core program, MSBA reimburses districts for a percentage of eligible project costs. The 2025 reimbursement rate is still being determined. The 2024 rate was 43%, and it is expected that the 2025 reimbursement rate will be similar.

Proposed Project

The proposed project would replace Hardy's existing fossil-fuel heating system with an electric heat pump system, simultaneously adding sufficient cooling to all spaces, enhancing occupant comfort, and decarbonizing the heating load. The type, configuration, and cost would be determined as part of an initial feasibility study phase within the MSBA ARP.

The Town has performed its own feasibility studies to understand the electrification options at Hardy. A 2024 engineering study (Appendix B) recommended replacing the Hardy's ca. 2002 boiler (which is well past its useful life) with a variable refrigerant flow ("VRF") air-source heat pump system. A 2023 electrification study for six schools (Appendix C) explored the feasibility of both air-source and ground-source (or geothermal) heat pumps,

but preliminary layout designs suggest that siting a geothermal borefield could be difficult due the disruptive nature of drilling to the parking lot and playground.

As part of the ARP feasibility phase, the MSBA would perform an independent study that informs its decision regarding what system type makes logistical and financial sense. The independent study could provide different recommendations than the Town's studies.

Potential Costs

The Town's electrification studies for Hardy and schools of comparable size have yielded costs estimates ranging from \$5 million to \$8 million after anticipated incentives. A key goal of the ARP feasibility study would be to understand more accurately the costs of construction. It is worth noting that the Town's 2023 electrification study estimated that the cost of in-kind replacement of fossil-fuel heating systems and addition of cooling would be higher than or comparable to the cost of introducing heat pumps over system lifetimes.

Reducing energy use is critical for efficient and cost-effective building electrification. Energy use reduction projects at Hardy in fiscal years 2026 and 2027 will include replacement of the roof, envelope improvements, and the introduction of a solar array.

Next Steps

Should the Select Board and School Committee provide authorization, the Town/District project team will work under the guidance of the Superintendent to complete the ARP SOI submittal process. With its new heat pump category, the ARP is an important opportunity to lower the cost of upgrading aging systems while enhancing comfort and achieving climate change mitigation goals. The team also commits to pursuing other available state funding opportunities to further reduce project costs.



MSBA Accelerated Repair Statement of Interest Request: Hardy Heat Pumps

Arlington Select Board, March 17, 2025

Alex Magee, Deputy Town Manager/Finance Director

Talia Fox, Sustainability Manager



To reach net zero, electrify schools

- Net Zero Action Plan prioritizes electrification of schools
- School Committee/Select Board adopted Decarbonization Roadmap in 2024, goal to electrify Hardy by 2030
- Capital Planning Committee has encouraged Town to supplement all capital planning projects with grants if possible
- MSBA Accelerated Repair Program (ARP) opens every two years
- School Committee and Select Board must approve Superintendent submission of statement of interest (SOI) to ARP



MSBA Accelerated Repair Program (ARP) now funds heat pumps

- ARP established in 2012 to preserve existing school buildings; District has never applied
- ARP is distinct from MSBA Core Program, will not jeopardize District's application for Ottoson
- ARP has new, \$250 million heat pump conversion category
- Awards made in fall 2025 for project start in 2026
- If invited, District must appropriate funds feasibility in 90 days, full cost within 12 months.
- ARP relies on reimbursement, 2024 rate was 43%



Proposed project at Hardy

- Replace existing 2002 natural gas boiler system with electric heat pumps that heat and cool
- Independent ARP feasibility study would determine type, configuration, and cost of heat pumps
- Town feasibility studies (2024 and 2023) provide cost estimates and preliminary layout for air-source and ground-source systems
- Initial cost estimates for electrification: \$5-\$8M; for in-kind replacement of all system components: \$9M
- Planned energy reduction projects at Hardy: roof replacement, envelope improvements, solar array



Next Steps

- School Committee heard and voted on request (3/13)
- Select Board hears and votes on request today (3/17)
- Pending authorization, Sustainability Manager and Deputy Town Manager/Finance Director submit SOI on behalf of Schools by Friday, 3/21





Climate Leaders Municipal Decarbonization Roadmap

Prepared for: The Town of Arlington, MA
December 2024



Introduction

In 2021, the Commonwealth of Massachusetts amended the state’s signature climate law by *An Act Creating a Next Generation Roadmap for Massachusetts Climate Policy*, also known as the 2021 Climate Law.^{1,2} The 2021 Climate Law requires the Secretary of the Executive Office of Energy and the Environment (Secretary) to set statewide greenhouse gas (GHG) emissions limits and set sector-specific emissions sublimits that are to be met every five years. These limits require GHG emissions to be at least 33 percent below 1990 levels in 2025, and 50 percent below 1990 levels in 2030.

The Climate Leader Community certification was established to provide a framework for municipalities to meet these goals, in partnership with the Commonwealth of Massachusetts.³ To become a certified Climate Leader, a municipality must 1) commit to eliminating on-site fossil fuel use by the municipality by 2050; and 2) develop a roadmap for decarbonizing municipal operations. In addition to accomplishing reductions in GHG emissions, a Climate Leader Community will gain access to further support and funding for decarbonization activities. The roadmap must focus on eliminating the use of fossil fuels by municipal buildings and vehicles and use a “Zero Over Time” approach (Table 1).⁴ This Climate Leaders Municipal Decarbonization Roadmap was developed for the Town of Arlington as the second of five total requirements for certification.

Table 1. Minimum Emission Reduction Timeline, suggested and established by the MA Department of Energy Resources (DOER).

Targets	2027	2030	2040	2050
Emissions reductions from onsite fossil fuels	-20%	-35%	-60%	-100%
Zero emission vehicles (ZEVs) in light-duty fleet adoption	5%	20%	75%	100%
Zero emission vehicles (ZEVs) in heavy-duty fleet adoption	0%	20%	50%	100%
Energy Use Intensity reduction	-20%	-25%	-25%	-30%
Total Emissions Reduction Goals (% of 2022 emissions)	>15%	>35%	>65%	>95%

¹ Global Warming Solutions Act, 2008, <https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter298>

² 2021 Climate Law, <https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8>

³ An Act Relative to Green Communities, 2008, <https://malegislature.gov/laws/sessionlaws/acts/2008/chapter169>

⁴ [Green Communities 2.0](#)

Baseline Emissions

The Town of Arlington, Massachusetts (Arlington, or the Town) has been a designated Green Community since 2010. Throughout Arlington's years as a Green Community, the Town has been granted more than \$2 million to complete projects focused on energy efficiency, building upgrades, and fleet electrification infrastructure. In Fiscal Year 2022, Arlington's municipal operations (municipal and school buildings, lighting, and the Town's municipal and school fleets), emitted 7,891 metric tons of carbon dioxide equivalent (MT CO₂e) (Table 2, calculated using the MassEnergyInsight tool). To become a certified Climate Leader, Arlington will need to advance projects that reduce energy consumption and GHG emissions and strive to implement the following decarbonization roadmap.

This roadmap evaluates the following strategies to decarbonize Arlington's facilities: energy efficiency, electrification (fuel-switching away from fossil fuel equipment to electric alternatives), and on-site solar photovoltaics. The roadmap also analyzes 151 internal combustion engine vehicles in Arlington's fleet to match them with the best candidates for battery electric vehicles (BEV). A combination of in-house economic models, a virtual energy audit, and Helioscope solar software were used to produce this roadmap. Because this roadmap focuses on reducing on-site fossil fuel usage, the results of the solar assessment are provided only in the Appendix.

By 2050, the measures highlighted in this roadmap are estimated to reduce Arlington's GHG emissions by over 100,000 cumulative MT CO₂e and lower building Energy Use Intensity (EUI), in thousand British thermal units (kBtu) over building square footage (ft²), by 54 percent, meeting the emissions reductions goals defined by the Secretary.

KEY FACTS

BUILDINGS

- 36 buildings included in analysis
 - Total 1,322,121 ft²
- FY2022 Usage:
 - 9,434 MWh
 - 79,405 MCF natural gas
 - 15,754 gallons fuel oil
 - 6,660 MT CO₂e

VEHICLES

- Included in analysis
 - 79 light-duty vehicles (LDV)
 - 34 mid-duty vehicles (MDV)
 - 38 heavy-duty vehicles (HDV)
- Excluded from analysis
 - 52 NRE/Trailer
 - 6 EVs
 - 4 Motorcycles
- FY2022 Fleet Usage:
 - 71,794 gallons gasoline
 - 42,035 gallons diesel
 - 1,071 MT CO₂e

Table 2. Town of Arlington's municipal GHG Emissions, Fiscal Year 2022, grouped by Town buildings, school buildings, vehicles, and streetlighting. Based on energy consumption and vehicle data provided by the Town from Massachusetts Energy Insights (MEI).

Department and Facility Name	Fiscal Year 2022 Emissions (MT CO ₂ e) ⁵			
	Electricity	Fossil Fuels	Total	Percent of Total
School	1,641	3,203	4,844	61.4%
Arlington High School	635	1,259	1,894	24.0%
Ottoson Middle School	214	501	715	9.1%
Hardy Elementary School	124	312	436	5.5%
Gibbs School (6th Grade)	164	139	303	3.8%
Dallin Elementary School	88	186	275	3.5%
Stratton Elementary School	73	199	273	3.5%
Bishop Elementary School	73	187	260	3.3%
Peirce Elementary School	76	170	246	3.1%
Brackett Elementary School	93	139	232	2.9%
Thompson Elementary School	101	111	212	2.7%
Vehicles (all departments)	5	1,066	1,071	13.6%
Vehicles	5	1,066	1,071	13.6%
Recreation	148	289	437	5.5%
Ed Burns Arena	121	146	268	3.4%
Parmenter School	26	143	169	2.1%
North Union Spray Pool	0	-	0	0.0%
Administration	96	310	406	5.1%
Town Hall & Annex	33	189	222	2.8%
Central School/Community Center	44	81	125	1.6%
Whittemore Robbins House	12	20	32	0.4%
Jefferson Cutter House	5	9	14	0.2%
Jarvis House	1	11	12	0.2%
Robbins Cottage	0	0	0	0.0%
Carriage House ⁶	-	-	-	-
Public Safety	167	186	349	4.5%
Community Safety Building/Police	99	111	210	2.7%
Central Fire Station	39	39	78	1.0%
Highland Fire Station	18	23	41	0.5%
Park Circle Fire Station	11	13	24	0.3%
Public Works	62	261	325	4.1%
DPW Bldg D - Snow Fighting Garage	25	114	140	1.8%
DPW Bldg A - Admin/Engineering/Inspections	11	48	58	0.7%
DPW Bldg C - Maintenance Garage	8	36	44	0.6%
DPW Bldg B - Admin Offices/Assembly Hall	7	31	37	0.5%
Ryder Street Garage	10	20	30	0.4%
Cemetery Building - Chapel & Office	1	10	11	0.1%
Cemetery Garage	1	4	4	0.1%
DPW Building E & G - NEW ⁶	-	-	-	-

⁵ Emissions factors used to calculate MT CO₂e can be found in Table 5.

⁶ The Carriage House was unoccupied in FY22, and DPW Buildings E & G are new buildings with no data for FY22, which are nevertheless included in emissions projections.

Department and Facility Name	Fiscal Year 2022 Emissions (MT CO ₂ e) ⁵			
	Electricity	Fossil Fuels	Total	Percent of Total
Library	123	108	231	2.9%
Robbins Library	102	87	189	2.4%
Fox Library	21	21	42	0.5%
Street/Traffic Lighting	138	-	138	1.7%
Streetlights	109	-	109	1.4%
Traffic	25	-	25	0.3%
Playground/Field Lights	4	-	4	0.0%
Rentals	29	23	52	0.7%
Dallin Library Building/ACMi	17	11	28	0.3%
23 Maple Street	12	12	24	0.3%
Water/Sewer	35	-	35	0.4%
Pump Stations	23	-	23	0.3%
Reservoir	13	-	13	0.2%
Lowell Bath House	1	-	1	0.0%
Total	2,445	5,447	7,891	100%

Table 3. Town of Arlington's GHG Emissions from buildings included in analysis, Fiscal Year 2022. Based on energy consumption data provided by the Town from Massachusetts Energy Insights (MEI).

Facility Name	Fiscal Year 2022 Emissions (MT CO ₂ e) ⁷			
	Electricity	Fossil Fuels	Total	Percent of Total
Arlington High School	635	1,259	1,894	28.4%
Ottoson Middle School	214	501	715	10.7%
Hardy Elementary School	124	312	436	6.5%
Gibbs School (6th Grade)	164	139	303	4.5%
Dallin Elementary School	88	186	275	4.1%
Stratton Elementary School	73	199	273	4.1%
Ed Burns Arena	121	146	268	4.0%
Bishop Elementary School	73	187	260	3.9%
Peirce Elementary School	76	170	246	3.7%
Brackett Elementary School	93	139	232	3.5%
Town Hall & Annex	33	189	222	3.3%
Thompson Elementary School	101	111	212	3.2%
Community Safety Building/Police	99	111	210	3.2%
Robbins Library	102	87	189	2.8%
Parmenter School	26	143	169	2.5%
DPW Bldg D - Snow Fighting Garage	25	114	140	2.1%
Central School/Community Center	44	81	125	1.9%
Central Fire Station	39	39	78	1.2%
DPW Bldg A - Admin/Engineering/Inspections	11	48	58	0.9%
DPW Bldg C - Maintenance Garage	8	36	44	0.7%
Fox Library	21	21	42	0.6%
Highland Fire Station	18	23	41	0.6%
DPW Bldg B - Admin Offices/Assembly Hall	7	31	37	0.6%
Whittemore Robbins House	12	20	32	0.5%
Ryder Street Garage	10	20	30	0.5%
Dallin Library Building/ACMi	17	11	28	0.4%
23 Maple Street	12	12	24	0.4%
Park Circle Fire Station	11	13	24	0.4%
Jefferson Cutter House	5	9	14	0.2%
Bath & Pump Houses - Reservoir	13	-	13	0.2%
Jarvis House	1	11	12	0.2%
Cemetery Building - Chapel & Office	1	10	11	0.2%
Cemetery Garage	0.5	4	4	0.1%
Robbins Cottage	0	0	0	0.0%
Spy Pond Field House	0.1	-	0	0.0%
Carriage House	-	-	-	-
DPW Building E - NEW (Facilities)	-	-	-	-
DPW Building G - NEW Salt Shed ⁸	-	-	-	-
Total	2,280	4,381	6,660	100%

⁷ Emissions factors used to calculate MT CO₂e can be found in Table 5.

⁸ The Carriage House was unoccupied in FY22, and DPW Buildings E & G are new buildings with no data for FY22, which are nevertheless included in emissions projections.

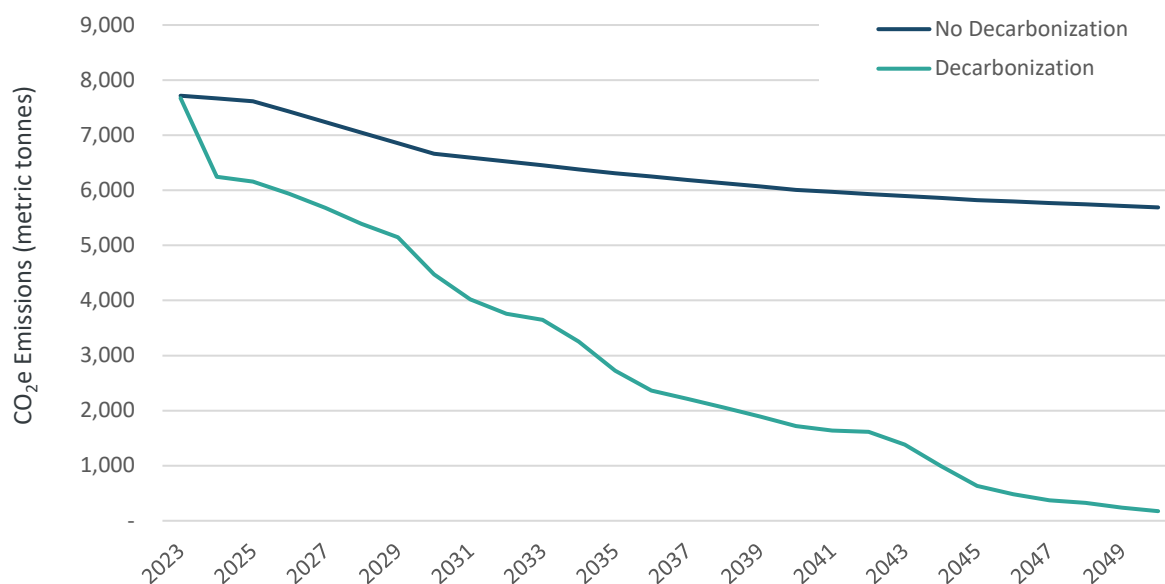
Summary of Findings

The projected reductions associated with decarbonizing the 36 buildings and 151 vehicles analyzed in this roadmap are summarized in Table 4 and Figure 1 below. Overall, the Town could expect to see a 98 percent reduction in GHG emissions by 2050, compared to Fiscal Year 2022 baseline emissions levels. The appendix also contains a detailed table with baseline emissions, energy efficiency measures, suggested equipment replacement types, and on-site solar potential.

Table 4. Projected emissions reductions as a result of decarbonizing the Town of Arlington's 36 buildings and 151 vehicles analyzed in this roadmap, compared to FY22 emissions baseline.

Decarbonization Roadmap Projections	2027	2030	2040	2050
Emissions reductions from onsite fossil fuels	-32%	-45%	-85%	-100%
Zero emission vehicles (ZEVs) in light-duty fleet adoption	6%	18%	78%	100%
Zero emission vehicles (ZEVs) in heavy-duty fleet adoption	3%	4%	33%	100%
Energy Use Intensity reduction	-19%	-26%	-47%	-55%
Total Emissions Reduction Goals (% of 2022 emissions)	25%	40%	76%	98%

Figure 1. CO₂e emissions by scenario, showing percent reduction as compared to FY2022 emissions (2022-2050) for facilities (36 buildings) and fleet (151 vehicles).





Decarbonization Plans for High Impact Buildings



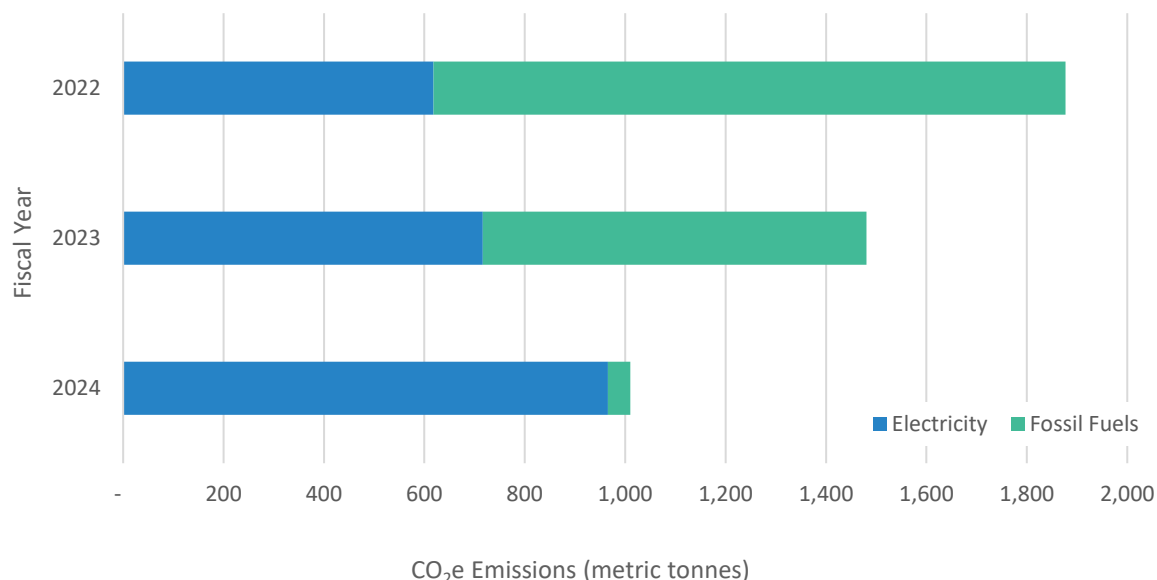
Buildings Background

Thirty-six municipal buildings (Table 3), which accounted for over 86 percent (6,660 MT CO₂e) of total Town emissions in Fiscal Year 2022, were included in the analysis. Eleven of those thirty-six buildings contributed 77 percent of building emissions and 67 percent of the Town's total Fiscal Year 2022 emissions (Table 2): the Arlington High School (28%); Ottoson Middle School (11%); Hardy Elementary School (6.5%); Gibbs School (4.5%); Dallin Elementary School (4.1%); Stratton Elementary School (4.1%); Ed Burns Arena (4%); Bishop Elementary School (3.9%); Peirce Elementary School (3.7%); Brackett Elementary School (3.5%); and Town Hall and Annex (3.3%). Focusing efforts on these high impact facilities will reduce overall emissions and contribute significantly to the Town's overall projected emissions reductions.

Since Fiscal Year 2022, decarbonization measures have already been implemented at the Arlington High School and two of the Department of Public Works (DPW) buildings, and additional energy-saving and clean energy projects are being considered at the Bishop, Brackett, Dallin, Hardy, and Thompson Elementary Schools.

As of November 2024, the construction of the new, fully electric Arlington High School is nearing completion. The electrification of this school significantly contributes to the Town's projected on-site fossil fuel emissions reductions between Fiscal Year 2022 and Fiscal Year 2024 (Table 4). Since 2022, the school's emissions have decreased by 46 percent (Figure 2). This building is therefore excluded from near-term decarbonization planning for the listed high impact buildings.

Figure 2. Arlington High School's GHG emissions from Fiscal Year 2022-Fiscal Year 2024, as reported in MassEnergyInsight (MEI).



Ottoson Middle School

In Fiscal Year 2022, the Ottoson Middle School emitted 715 MT CO₂e, the second highest building-related emissions at the time. Though the Town has replaced some of the heating equipment at the school with newer, high-efficiency boilers, natural gas emissions were responsible for over 70 percent of the building's total emissions.

The Town plans to replace this middle school within the next five to ten years and will explore options for the construction of an all-electric building. Given the school's proximity to a baseball field and parking lots, the use of ground-source heat pumps (GSHP) may be considered during construction of the new building. Though the size of the new school and heating load is not yet confirmed, it is estimated that somewhere between 50 and 60 wells would be required for a GSHP system.

Several energy conservation projects have been funded by Green Communities over the past decade, and though emissions have improved during this time, new construction could allow the Town to achieve net zero emissions at the middle school.

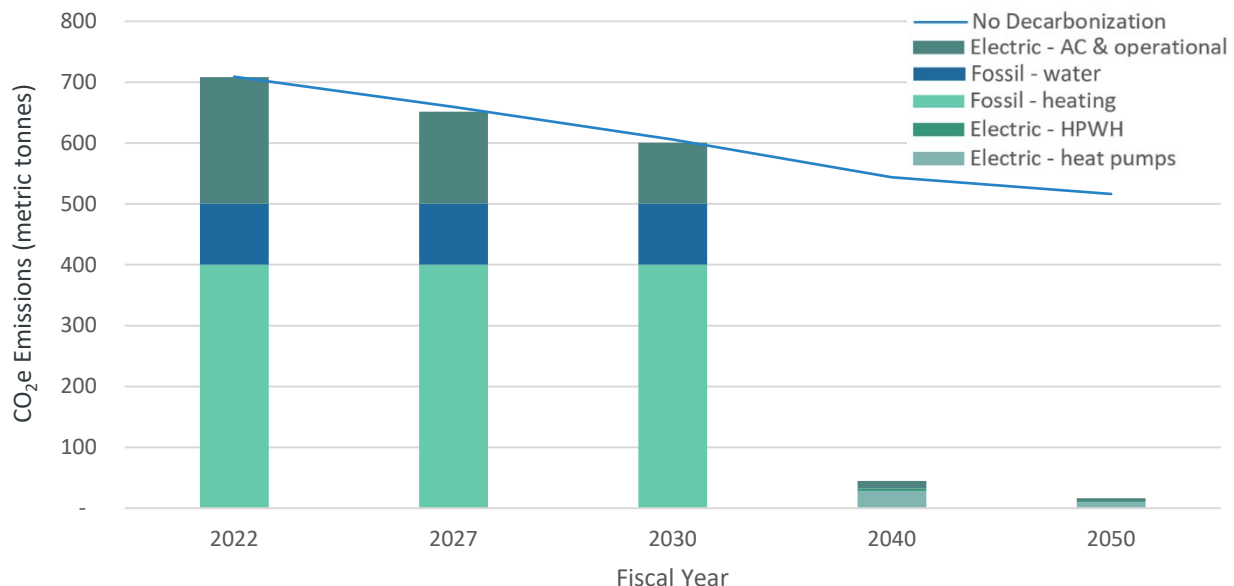
Building Characteristics

Square Footage: 154,380
FY2022 Emissions: 715 MT CO₂e
FY2022 EUI: 81 kBtu/ft²
Existing Solar: Yes, 94.2 kW and 3.4 kW
Heating: 1998/2014/2021, natural gas
Water Heating: 2014, natural gas
Kitchen: natural gas

Proposed Strategy

HVAC: 2035, GSHP*
Water Heating: 2035, GSHP*
Kitchen: 2035, induction range*
**with fully rebuilt school*

Figure 3. Estimated future building emissions based on proposed building efficiency and electrification plans at Ottoson Middle School.



Hardy Elementary School

Though GHG emissions the Hardy Elementary School were lower than those of the Ottoson Middle School, its EUI was nearly double, at 121 kBtu/ft². This is likely related to the inefficiencies associated with the dated natural gas boilers and envelope leakage. Within the next year, roof replacement, weatherization and other energy efficiency measures are planned, which are likely to reduce the school's EUI in the near-term.

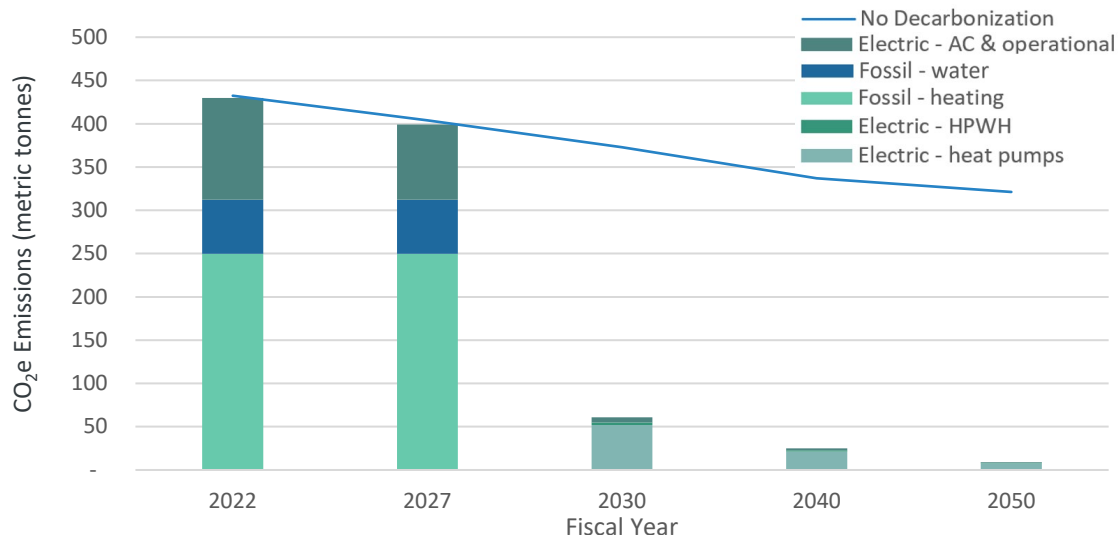
The heating and cooling equipment at this building have reached the end of their projected useful life, so electrification upgrades to the existing equipment could begin immediately. Using American Rescue Plan Act (ARPA) funding, the Town has solicited recommendations and a cost estimate for electrification of the school's heating and cooling equipment. Funding has not been secured, but electrification may be prioritized. The Town is exploring alternative financing and grant options, as the cost is too high to be accommodated in the capital plan.

Variable Refrigerant Flow (VRF) heat pumps could replace the current natural gas boilers, given the size of the building and existing equipment. Around 2030, the existing natural gas water heater could be upgraded to a heat pump water heater (HPWH), and the natural gas cooking range converted to electric or induction around 2032.

Building Characteristics
Square Footage: 63,180
FY2022 Emissions: 436 MT CO₂e
FY2022 EUI: 121 kBtu/ft²
Existing Solar: No
Heating: 2002, natural gas
Water Heating: 2018, natural gas
Kitchen: natural gas

Proposed Strategy
HVAC: 2030, VRF
Water Heating: 2030, HPWH
Kitchen: 2032, induction or electric range
Solar: 100 kW planned

Figure 4. Estimated future building emissions based on proposed building electrification plans at the Hardy Elementary School.



Gibbs School

The Gibbs School was the third-highest emitter of the Town buildings in Fiscal Year 2022. Fossil fuel emissions accounted for less than half of the school's total emissions but still contributed significantly to the Town's overall emissions.

In 2017, two of the school's three boilers were replaced with high-efficiency boilers and will not reach the end of their projected useful life in the near-term. These boilers, in combination with the two newer rooftop units (RTUs), are likely the reason for the lower fossil fuel consumption. Electrification of the existing boiler installed in 2000, which is currently used for backup, could be considered in the near-term. Both VRF and heat pump packaged units would be viable options for electrification of the natural gas heating equipment. Heat pump water heaters could replace the existing natural gas heaters at or near their end of useful life around 2029, and an electric or induction cooking range could replace the natural gas range around the same time.

Building Characteristics

Square Footage: 53,769

FY2022 Emissions: 303 MT CO₂e

FY2022 EUI: 92 kBtu/ft²

Existing Solar: No

Heating: 2000/2017, natural gas

Water Heating: 2017, natural gas

Kitchen: natural gas

Proposed Strategy

Energy Efficiency: 2025-2029

HVAC: 2032, VRF and HP RTUs

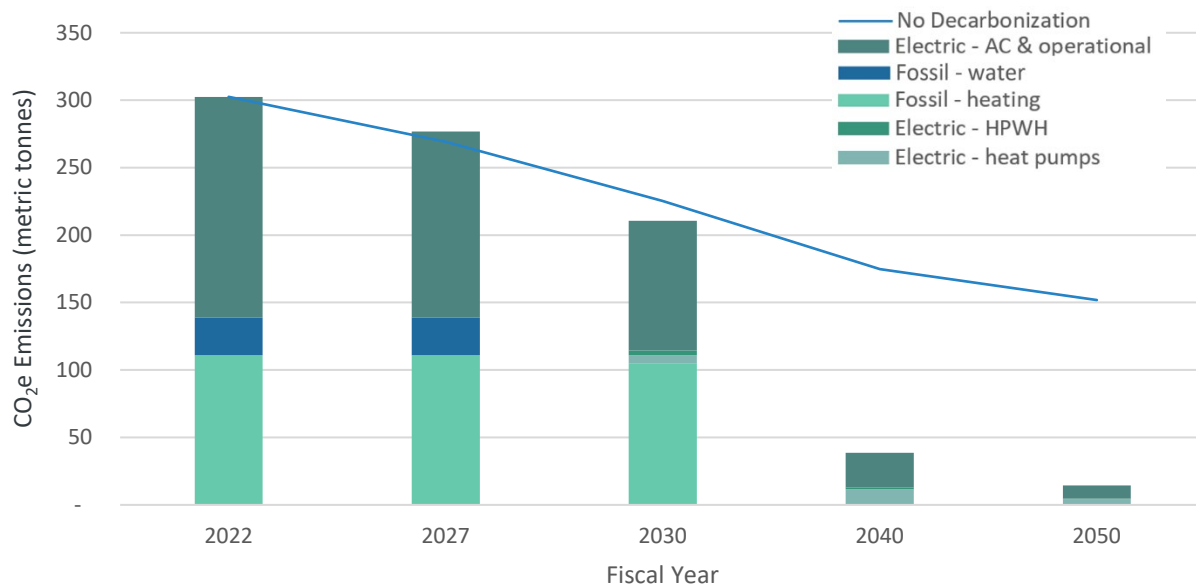
Water Heating: 2029, HPWH

On-Site Solar Potential: 120 kW

Kitchen: 2030, induction or electric range

Energy efficiency measures such as ensuring building management system (BMS) and ventilation efficiencies, and upgrading lighting controls and fixtures, could also reduce energy consumption in the near-term and should be explored prior to electrification.

Figure 5. Estimated future building emissions based on proposed building efficiency and electrification plans at the Gibbs School.



Dallin Elementary School

The Dallin Elementary School was the next-highest emitter of GHG emissions in Fiscal Year 2022 and had an EUI of 69 kBtu/ft². At the start of Fiscal Year 2023, the school received funding for energy conservation measures including insulation and LED lighting. The implementation of these energy conservation measures is expected to reduce the school's GHG emissions in the near-term.

The existing boilers installed in 2005 will be replaced with high efficiency gas boilers (rather than heat pumps) in Fiscal Year 2025 due to funding constraints. Though still powered by fossil fuels, these new boilers will reduce emissions at the elementary school. Although the new boilers are assumed not to be replaced until 2045, options for electrification could be explored in the interim. The natural gas water heater has reached the end of its projected useful life and could be replaced with a heat pump water heater as soon as 2025, or as funding permits. The existing natural gas cooking range could be electrified around the same time.

Building Characteristics

Square Footage: 68,578

FY2022 Emissions: 275 MT CO₂e

FY2022 EUI: 69 kBtu/ft²

Existing Solar: Yes, 117 kW

Heating: 2005, natural gas

Water Heating: 2005, natural gas

Kitchen: natural gas

Proposed Strategy

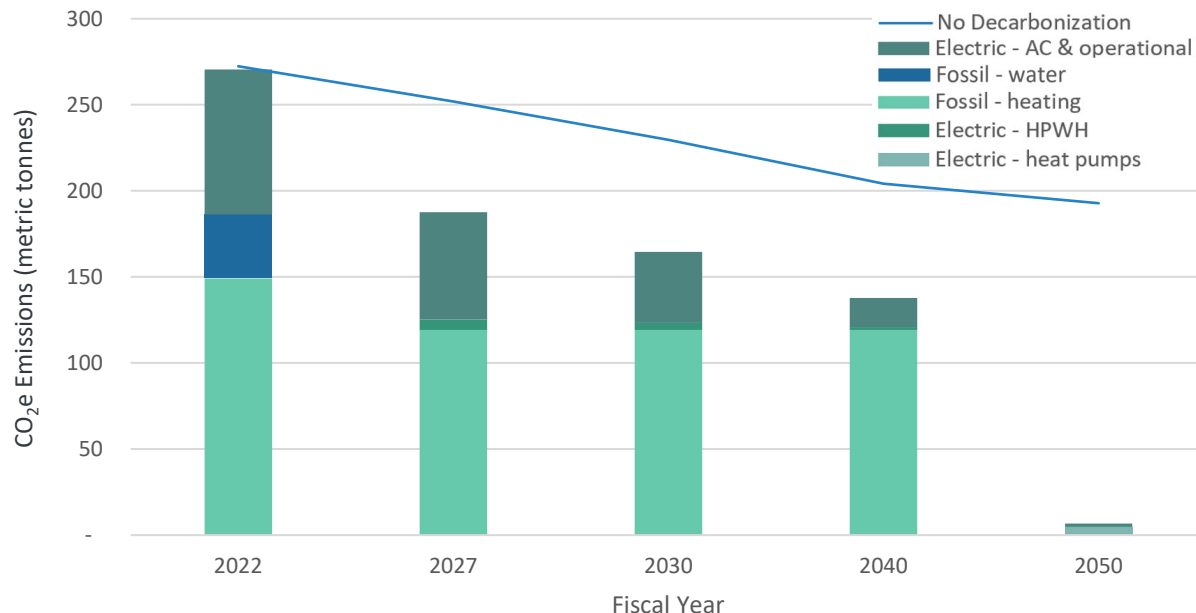
Energy Efficiency: continued through 2025-2029

HVAC: 2045, VRF

Water Heating: 2025, HPWH

Kitchen: 2027, induction or electric range

Figure 6. Estimated future building emissions based on proposed building electrification plans at the Dallin Elementary School.



Stratton Elementary School

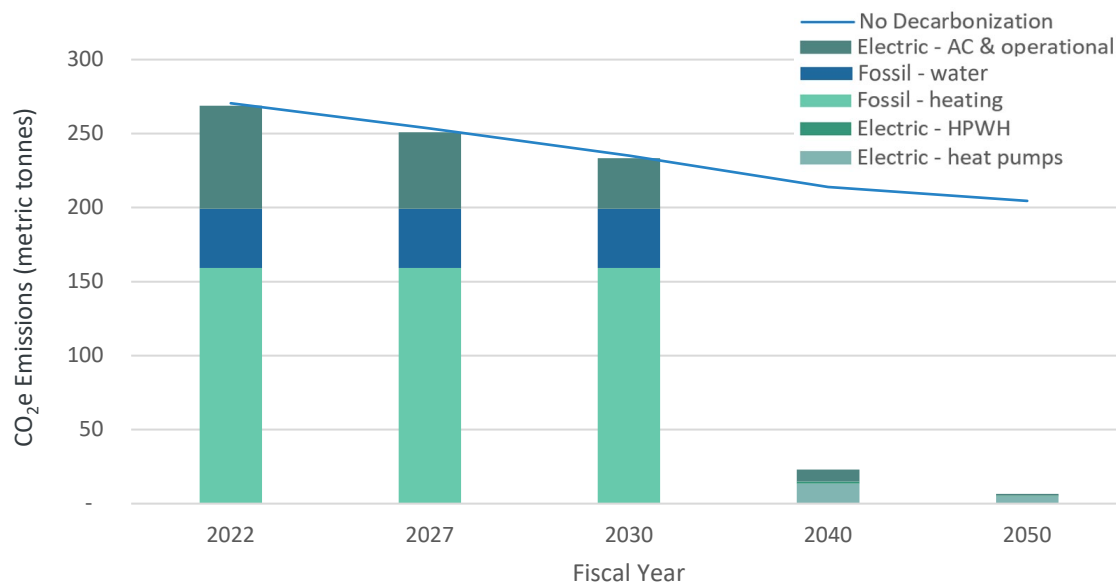
The Stratton Elementary School contributed 273 MT CO₂e to the Town's emissions in Fiscal Year 2022. This building does not emit as large a quantity of GHGs as some of Arlington's other school buildings, but it is still a top contributor to the Town's overall emissions (3.6 percent). Direct fossil fuel use contributed nearly 75 percent of building emissions.

Upgrades to existing heating and cooling equipment likely will not be needed in the near term. When the two remaining boilers from 2016 reach the end of their useful lives around 2031, VRF heat pumps could be an appropriate replacement. A new VRF heat pump system could also supplement the existing VRF technology that exists at the school. The current VRF system will likely need updating at around the same time as the boiler replacement.

Building Characteristics	
Square Footage:	63,300
FY2022 Emissions:	273 MT CO ₂ e
FY2022 EUI:	76 kBtu/ft ²
Existing Solar:	Yes, 117 kW
Heating:	2016, natural gas & electric
Water Heating:	2016, natural gas
Kitchen:	natural gas
Proposed Strategy	
Energy Efficiency:	2025-2029
HVAC:	2031 (boiler), VRF
Water Heating:	2031, HPWH
Kitchen:	2035, induction or electric range

Heat pump water heaters could replace the existing water heaters also installed in 2016. Induction or electric range stovetops will be the final measure required to achieve net zero emissions by 2050. Energy efficiency measures, such as ensuring BMS and ventilation efficiencies and upgrading lighting controls and fixtures, could further reduce energy consumption near-term and should be studied prior to electrification.

Figure 7. Estimated future building emissions based on proposed building efficiency and electrification plans at the Stratton Elementary School.



Ed Burns Arena

The Ed Burns Arena & Ice Skating Rink contributed 268 MT CO₂e in Fiscal Year 2022. Due to the recreational use type of this facility, its EUI was the highest of all Town buildings. The heating and cooling equipment at the arena are newer, but fossil fuels still accounted for over 50 percent of the building's emissions.

Due to the size of the arena, and the building's energy demands, GSHPs could be an appropriate replacement for the four existing boilers installed in 2016. The geothermal system could also integrate with both domestic and building hot water. The large field and/or parking lot next to the area could be utilized for the installation of the 10 to 20 wells that are estimated to be required.

Building Characteristics

Square Footage: 25,680

FY2022 Emissions: 268 MT CO₂e

FY2022 EUI: 174 kBtu/ft²

Existing Solar: No

Heating: 2016, natural gas

Water Heating: 2016, natural gas

Proposed Strategy

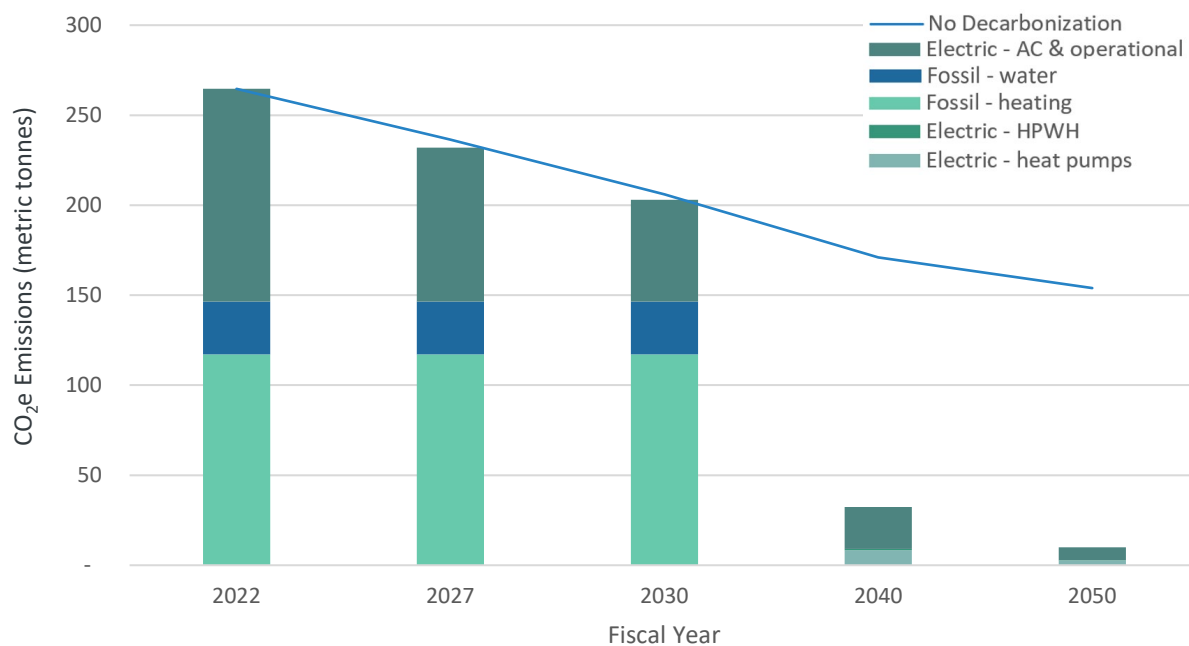
Energy Efficiency: 2025-2029

HVAC: 2031, GSHP

Water Heating: 2031, GSHP

Solar Potential: 2040, 216 kW

Figure 8. Estimated future building emissions based on proposed building efficiency and electrification plans at the Ed Burns Arena.



Bishop Elementary School

The Bishop Elementary School contributed close to 4 percent of the Town's building emissions in Fiscal Year 2022. Though similar in size to the Hardy Elementary School, emissions and EUI were 40 percent lower.

The school's current heating equipment was installed in 2005 and is expected to be replaced with new, efficient gas boilers in the near term. In 2044, when the new gas boilers reach the end of their useful lives, GSHPs could be utilized to electrify the building. Around 2032, the natural gas water heater installed in 2019 could be replaced with a heat pump water heater, which would further reduce emissions. Finally, in approximately 2035, an induction or electric cooking range could be installed to electrify the natural gas range at the school.

Building Characteristics

Square Footage: 51,367

FY2022 Emissions: 260 MT CO₂e

FY2022 EUI: 88 kBtu/ft²

Existing Solar: No

Heating: 2005, natural gas

Water Heating: 2019, natural gas

Kitchen: natural gas

Proposed Strategy

Energy Efficiency: 2025-2029

HVAC: 2044, GSHP

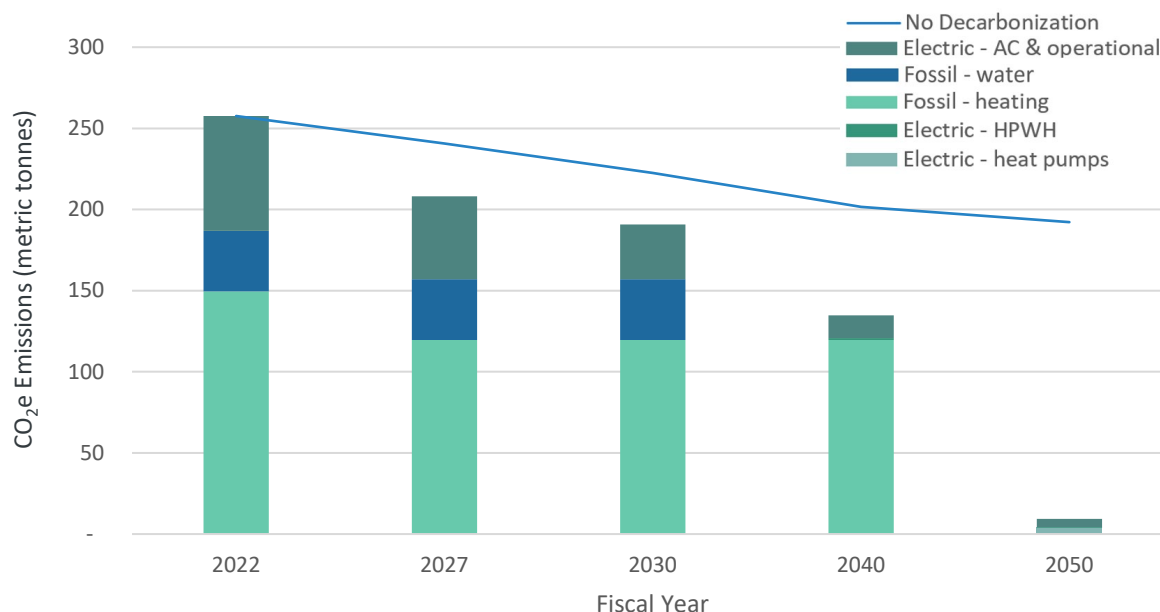
Water Heating: 2032, HPWH

Solar Potential: 100 kW, planned

Kitchen: 2035, induction or electric range

Though full building electrification is not expected to occur until 2044, the combination of new boilers and energy conservation measures, such as ensuring efficient BMS runtimes, improving insulation, and upgrading lighting fixtures, could help reduce emissions in the near-term.

Figure 9. Estimated future building emissions based on proposed building efficiency and electrification plans at the Bishop Elementary School.



Peirce Elementary School

The Peirce Elementary School has an emissions profile and path to decarbonization similar to that of the Bishop Elementary School. The two natural gas boilers have reached the projected end of their useful lives but are not expected to be electrified in the near-term due to cost limitations. They will instead be replaced with new, efficient gas boilers, which will reduce fossil fuel-related emissions.

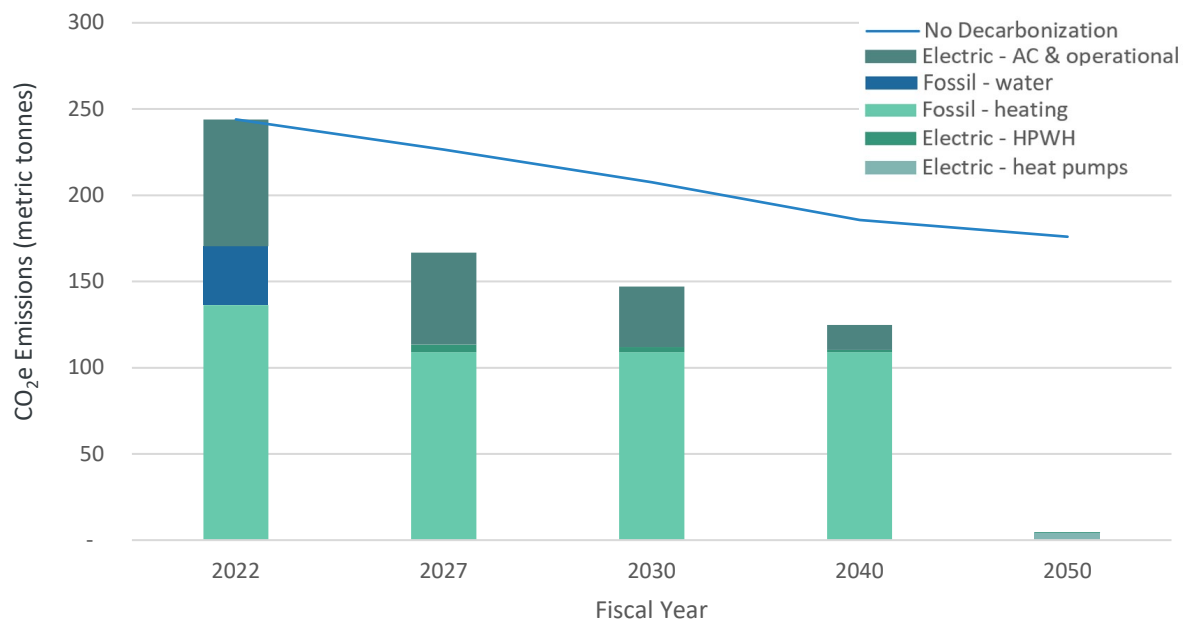
In the long term, options for electrification should be considered. VRF heat pumps could replace the new boilers around 2045, and a heat pump water heater could be used to electrify the existing natural gas water heater, which has reached the end of its useful life, as soon as financially feasible.

Building Characteristics
Square Footage: 48,500
FY2022 Emissions: 246 MT CO₂e
FY2022 EUI: 88 kBtu/ft²
Existing Solar: Yes
Heating: 2003, natural gas
Water Heating: 2002, natural gas
Kitchen: natural gas

Proposed Strategy
Energy Efficiency: 2025-2029
HVAC: 2045, VRF
Water Heating: 2026, HPWH
Kitchen: 2030, induction or electric range

Lighting upgrades were made to the building in Fiscal Year 2022, and additional energy conservation measures should be explored in the near-term. As recommended for the other school buildings, ensuring that temperature setpoints and schedules are running as intended could reduce energy consumption and emissions.

Figure 10. Estimated future building emissions based on proposed building efficiency and electrification plans at the Peirce Elementary School.



Brackett Elementary School

The Brackett Elementary School is the final school building on the high impact building list. In Fiscal Year 2022, it produced 232 MT CO₂e, or 3.5 percent, of the Town's total building emissions.

Electrification of the existing heating equipment at Brackett is not feasible in the near-term due to cost constraints. The school's two boilers, which have reached the end of their projected useful lives, are expected to be replaced with new, efficient gas boilers. Electrification will therefore be considered in the long term.

In approximately 2032, a heat pump water heater could replace the existing gas water heater, and an induction or electric stove could replace the gas cooking range. Energy efficiency measures could also be studied and implemented in the near term, to further reduce energy consumption at the school.

Building Characteristics

Square Footage: 57,670

FY2022 Emissions: 2.2 MT CO₂e

FY2022 EUI: 68 kBtu/ft²

Existing Solar: No

Heating: 2000, natural gas

Water Heating: 2017, natural gas

Kitchen: natural gas

Proposed Strategy

Energy Efficiency: 2025-2029

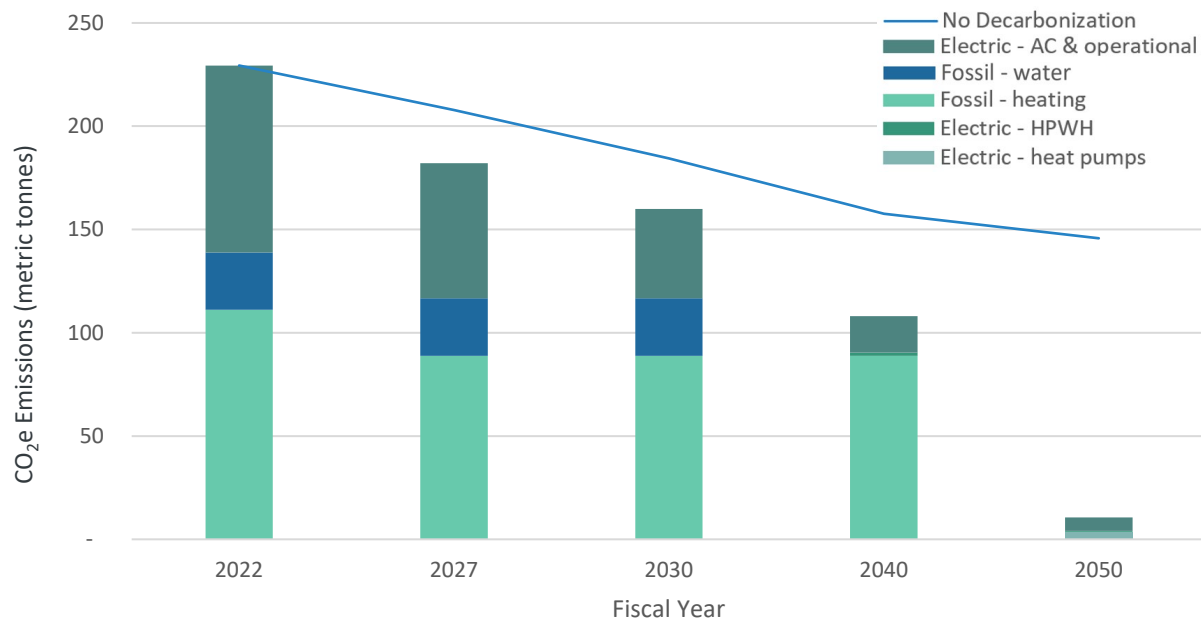
HVAC: 2044, VRF

Water Heating: 2032, HPWH

Solar Potential: 2040, 72.2 kW

Kitchen: 2030, induction or electric range

Figure 11. Estimated future building emissions based on proposed building efficiency and electrification plans at the Brackett Elementary School.



Town Hall and Annex

The Town Hall and Annex contributed 222 MT CO₂e in Fiscal Year 2022. The Town Hall complex is the final high impact building analyzed in the roadmap.

The Town Hall and Annex’s proximity to lawn space makes this complex a good candidate for ground-source heat pumps (GSHP). If installed, the GSHPs could also be used for water heating in the building and may also generate enough energy to serve the nearby Robbins Library. Though further studies would be necessary, preliminary estimates suggest that about 20 wells would be required.

Though electricity is used for water heating and cooking already, the high fossil fuel-related emissions suggest that there are opportunities for energy efficiency. Measures such as updating the BMS and replacing the single pane windows could reduce emissions in the near-term.

Building Characteristics

Square Footage: 45,612

FY2022 Emissions: 222 MT CO₂e

FY2022 EUI: 88 kBtu/ft²

Existing Solar: No

Heating: 2004/2019, natural gas

Water Heating: 2016, electric

Kitchen: electric

Proposed Strategy

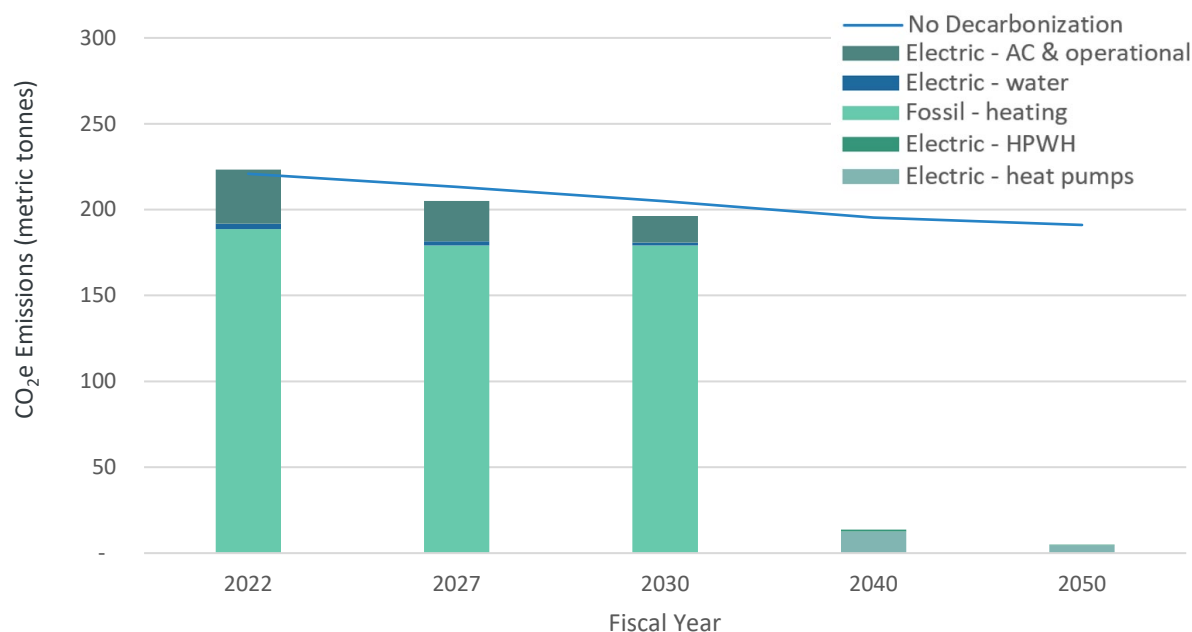
Energy Efficiency: 2025-2029

HVAC: 2034, GSHP

Water Heating: 2034, GSHP

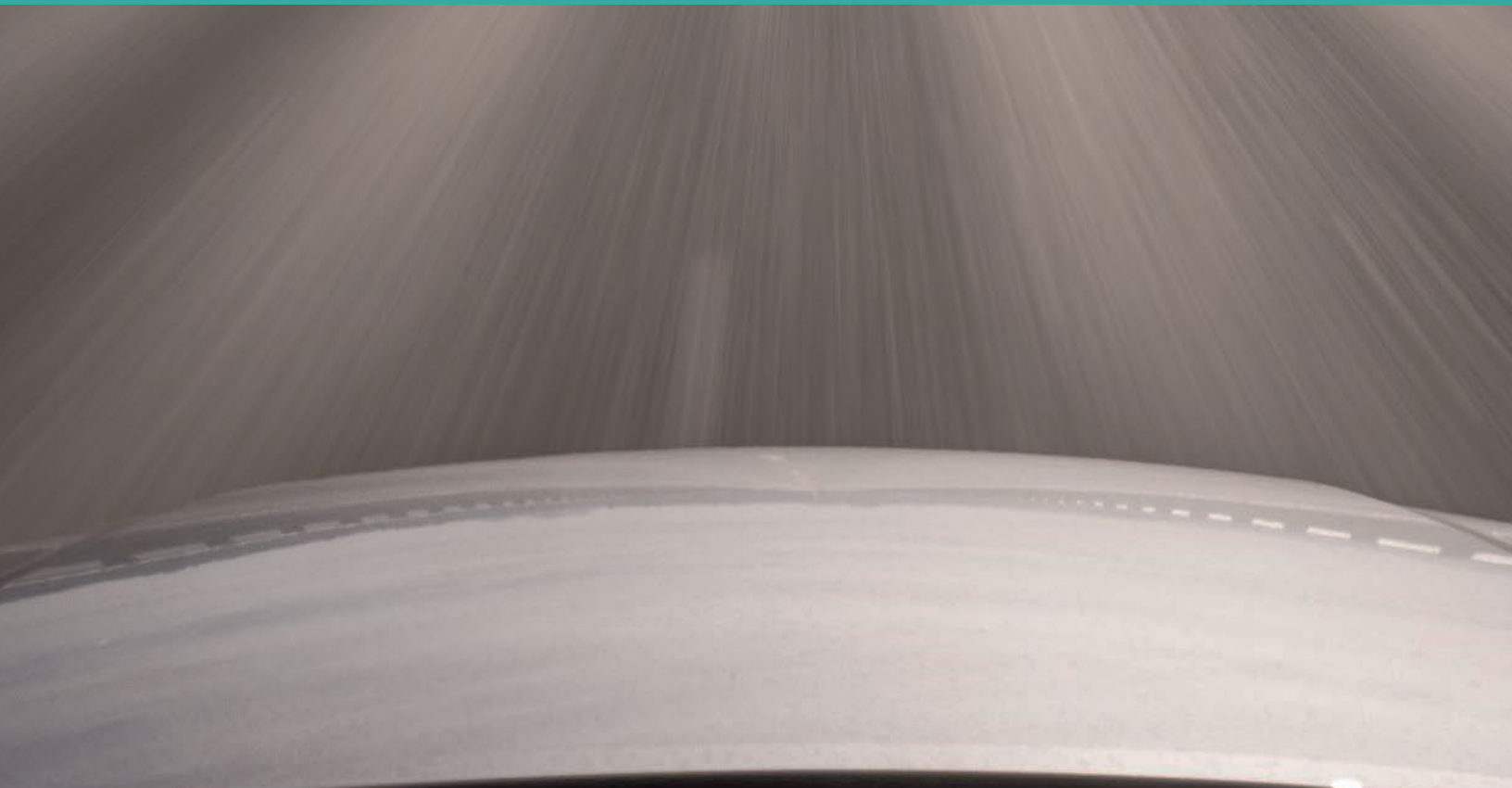
Solar Potential: 2034, 24.1 kW

Figure 12. Estimated future building emissions based on proposed building efficiency and electrification plans at the Town Hall & Annex.





Vehicles



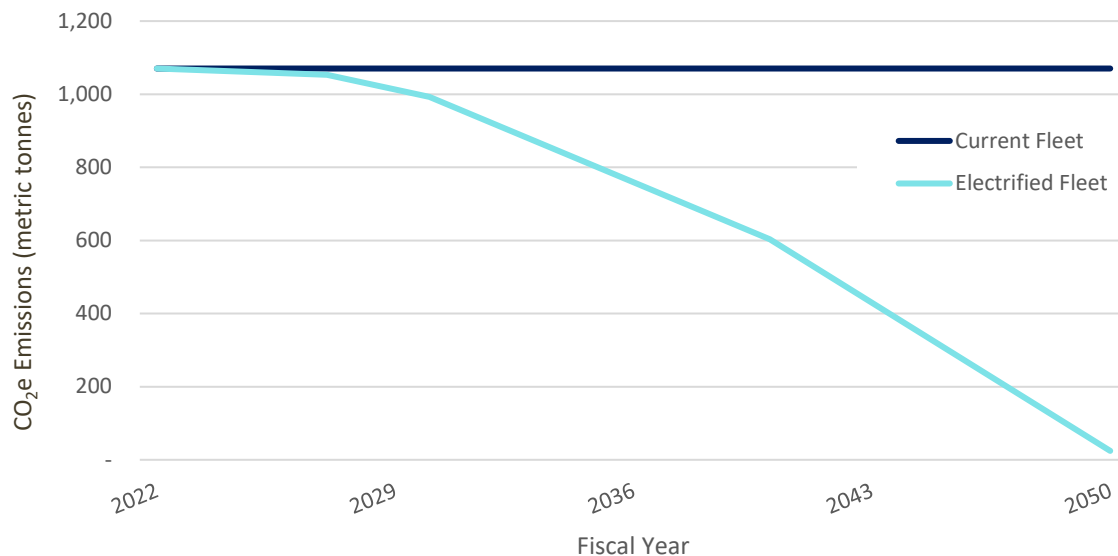
Fleet Vehicles

As of Fiscal Year 2023, the Town of Arlington has utilized grant funding to convert six of the Town's internal combustion engine (ICE) vehicles to battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEVs). The Town has also adopted a Zero-Emission Vehicle (ZEV) First policy, which is required for Climate Leader designation.⁹ This policy requires that municipal departments and divisions prioritize the purchase of ZEVs. While there are certain vehicle exemptions and exceptions permitted under specific circumstances, the policy is intended to eliminate the combustion of fossil fuels in fleets and support broader emissions reductions in the municipality. A procurement timeline that replaces vehicles at the end of their projected useful lives or when electric alternatives become available can be followed to comply with the policy.

Arlington's fleet consists of 151 vehicles: 79 light-duty vehicles (LDV), 34 medium-duty vehicles (MDV), and 38 heavy-duty vehicles (HDV).¹⁰ As of Fiscal Year 2023, Arlington had 6 EVs: 2 school buses and 4 Chevrolet Bolts; and 1 PHEV (a Toyota Prius), which were excluded from this analysis. Arlington's existing EVs were excluded from this analysis because the roadmap is specifically focused on transitioning the remaining ICE vehicles to zero-emission vehicles.

Municipal and school vehicles accounted for 14 percent of the Town's emissions in Fiscal Year 2022. Converting the current fleet of ICE vehicles to BEV platforms could result in avoiding 12,000 MT CO_{2e} emissions cumulatively through 2050.

Figure 13. CO_{2e} emissions by scenario, Fiscal Year 2022-2050.



⁹ Climate Leaders Zero-Emission-First Vehicle Policy, <https://www.mass.gov/doc/climate-leader-communities-zev-first-policy/download>

¹⁰ Alternative Fuels Data Center. "Vehicle Weight Classes & Categories." U.S. Department of Energy, <https://afdc.energy.gov/data/10380>.

Procurement Timeline

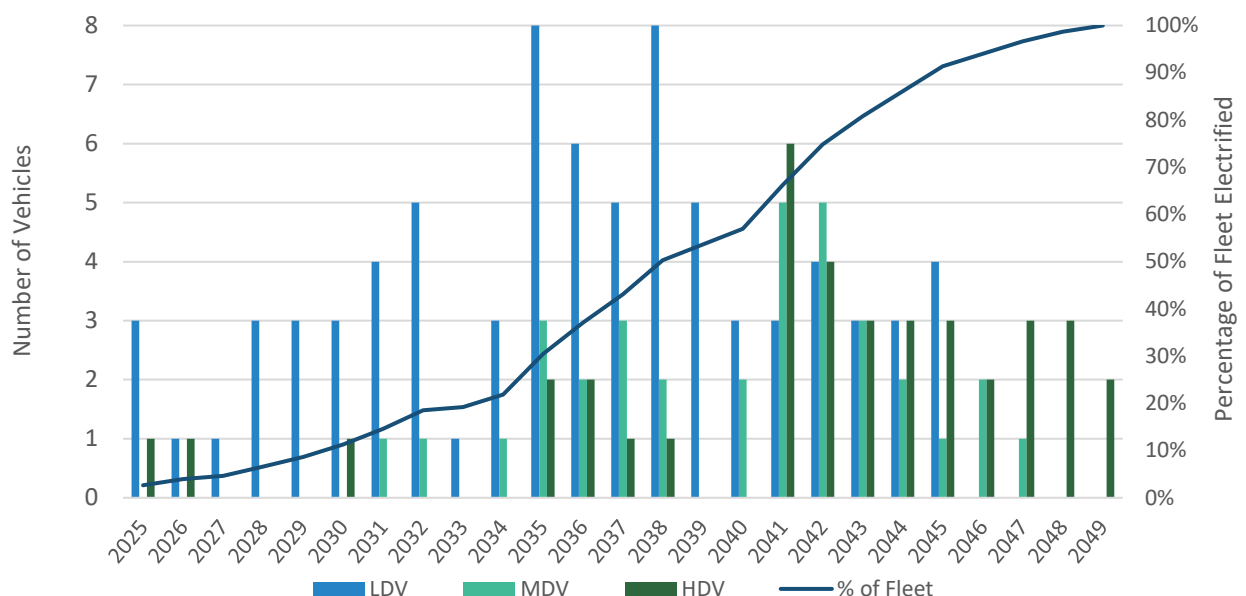
The procurement timeline is based on cost-effectiveness, annual budget considerations, and the remaining useful life of each vehicle in Arlington's fleet (Figure 14). The appendix contains a detailed table with specific replacement years and EV model replacements for each vehicle. Assumptions used to develop the procurement timeline may change with evolving factors such as vehicle availability.

From 2025-2030, 14 light- and 3 heavy-duty vehicles could be replaced with EVs. These are primarily sedans, SUVs, and pickup trucks—all of which have mature EV market options that are cheaper and cleaner to operate than their gas/diesel alternatives. Strong state incentives make near-term purchase possible and recommended.

Between 2031-2040, another 48 light-, 15 medium- and 6 heavy-duty vehicles could be replaced with EVs. These 27 heavier vehicles include transit vans, pickup trucks, heavy-duty trucks fire trucks, and school buses. The medium- and heavy-duty market is in the early stages of development, and advancements are expected to lead to increased cost-effectiveness in the future.

In 2041-2050, the remaining 17 light-, 19 medium-, and 29 heavy-duty vehicles will likely be cost-competitive candidates for EV replacement. Currently, electric alternatives for these vehicle types, particularly those with specialty features like mounted cranes and snowplows, are limited or non-existent. Options for fire and dump trucks are anticipated to expand, however, making them more cost competitive in the future. Therefore, it is recommended that the Town wait until the heavy-duty EV market matures and more options are available before electrifying these vehicles.

Figure 14. Vehicle replacement schedule by vehicle class (light-duty [LDV], medium-duty [MDV] and heavy-duty [HDV]).





Assumptions & Conclusion



Assumptions

Emissions Factors

- Emissions factors for fossil fuels are held constant throughout the roadmap and were derived from the Environmental Protection Agency's (EPA) published factors.¹¹ Electricity emissions factors are sourced from the MassEnergyInsight (MEI) tool, and represent estimates based off the New England grid.¹²

Buildings

- *Energy Efficiency Recommendations and Savings:* The measures and associated savings outlined for buildings were derived through completion of a virtual energy audit of all buildings.¹³
- *Electrification Recommendations:* Existing equipment replacement year is determined by the current age of the system(s) and any planning currently underway. The type of heat pump equipment used for electrification is determined using the following data points provided by the community:
 - o System age and capacity (Btu)
 - o Fuel type(s) used
 - o Building square footage
 - o Existing equipment type (i.e., boiler, furnace, RTU, etc.)

Fleet

- *Mileage Consideration:* Analysis incorporates average miles traveled to align recommendations with real-world usage patterns, unless otherwise provided by the Town.
- *Vehicle Replacement:* The year is determined by factors including:
 - o *Expected Lifetime:* Vehicles typically have a lifespan of around 10 years. This expected lifetime helps to establish a baseline for when replacement becomes necessary.
 - o *Market Availability:* Based on the availability of electric alternatives in the market, the recommendation is to wait until a specific model becomes available.

Table 5. MT CO₂e projections for various fuel types, provided by MassEnergyInsight portal (electricity), and sourced from the Environmental Protection Agency (EPA).

CO ₂ Emissions per Unit (metric tons, MTe)	2022	2025 (projected)	2030 (projected)	2040 (projected)	2050 (projected)
Electricity (kWh)	0.0002416	0.0002359	0.0001277	0.0000531	0.0000163
Natural Gas (therms)	0.005311	0.005311	0.005311	0.005311	0.005311
Fuel Oil (no .2) (gallons)	0.01018	0.01018	0.01018	0.01018	0.01018
Gasoline (gallons)	0.008788	0.008788	0.008788	0.008788	0.008788
Diesel (gallons)	0.01018	0.01018	0.01018	0.01018	0.01018
Propane (gallons)	0.00576	0.00576	0.00576	0.00576	0.00576

¹¹ [Greenhouse Gas Emissions Technical Reference](#)

¹² [MassEnergyInsight](#)

¹³ This was a "desktop" audit. In-person, technical audits will be required to validate efficiency measures to implement.

Conclusion & Next Steps

This roadmap illustrates that the Town of Arlington can meet the emissions reductions targets set by the Secretary and required for the Climate Leader Community certification. By 2050, the electrification measures outlined in this roadmap are estimated to reduce Arlington's GHG emissions by over 100,000 cumulative MT CO₂e and lower building Energy Use Intensity (EUI) by 54 percent.

To become a certified Climate Leader, Arlington will, in combination with ongoing GHG reduction efforts, strive to implement this Municipal Decarbonization Roadmap. To comply with Climate Leader guidelines, Arlington also commits to updating the proposed plan of action every three years.



Appendix

Table 6. Possible decarbonization measures, by building.

Building	Fiscal Year 2022 Emissions (MT CO ₂ e)	Energy Efficiency (EE) Measures	Space Heating		Domestic Water Heating		Solar PV Potential (kW)	
			Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (roof year)	Solar (installation year, size)
Arlington High School	1,894.1	New building	2022-2024, Electricity	2039, Ducted ASHP	2022-2024, Electricity	2039, HPWH	2022-2024	Existing & 2025, 223.81 kW existing & 354.2 kW planned
DPW Bldg A - Admin/Engineering/Inspections	58.2	Recent renovations, no EE measures in near-term	2023, Electricity	2038, Ducted ASHP	2022, Electricity (Heat Pump)	2035, HPWH	2022	N/A
DPW Bldg B - Admin Offices/Assembly Hall	37.4	Recent renovations, no EE measures in near-term	2023, Electricity	2038, Ducted ASHP	2023, Natural Gas	2034, HPWH	2024	N/A
Dallin Library Building / ACMi	27.6	Recent renovations, no EE measures in near-term	2023, Electricity	2038, Ducted ASHP	2016, Electricity	2031, HPWH	N/A	2040, 24.1 kW
Park Circle Fire Station	23.7	Ensure efficient BMS run times and temperature settings; Ensure efficient ventilation rates	2007, Natural Gas	2025, Ducted ASHP	2007, Natural Gas	2027, HPWH	2007	N/A

Building	Fiscal Year 2022 Emissions (MT CO ₂ e)	Energy Efficiency (EE) Measures	Space Heating		Domestic Water Heating		Solar PV Potential (kW)	
			Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (roof year)	Solar (installation year, size)
Jarvis House	12.4	No EE measures in near-term	2024, Electricity	2039, Ductless ASHP	2018, Natural Gas	2033, HPWH	1815	N/A
23 Maple Street	24.0	Planned weatherization	2010, Oil	2025, Ducted ASHP	2025, Oil	2027, HPWH	N/A	N/A
Robbins Cottage	0.1	No EE measures in near-term	2024, Electricity	2038, Ductless ASHP	2024, Natural Gas	2039, HPWH	N/A	N/A
Ryder Street Garage * Likely to be torn down or renovated	30.1	N/A	2002, Natural Gas	2038, Ducted ASHP	2023, Natural Gas	2038, HPWH	1950	2040, 24.1 kW
Fox Library	41.9	Likely to be demolished and replaced in the near-term	2008, Natural Gas	2028, VRF	2023, Natural Gas	2028, HPWH	2005	2030, 24.1 kW
Highland Fire Station	41.3	Ensure efficient ventilation rates	2011, Natural Gas	2028, VRF	2011, Natural Gas	2026, HPWH	2011	N/A
Hardy Elementary School	435.8	Monitor temperature setpoints and/or add additional control points; Upgrade lighting controls and fixtures as needed	2002, Natural Gas	2030, VRF	2018, Natural Gas	2030, HPWH	2001	2025 (planned), 100 kW

Building	Fiscal Year 2022 Emissions (MT CO ₂ e)	Energy Efficiency (EE) Measures	Space Heating		Domestic Water Heating		Solar PV Potential (kW)	
			Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (roof year)	Solar (installation year, size)
Thompson Elementary School	211.9	Ensure efficient ventilation rates	2015, Natural Gas	2030, GSHP	2015, Natural Gas	2030, GSHP	2013	Existing, 94.24 kW
Central Fire Station	78.0	Ensure efficient ventilation rates	2015, Natural Gas	2030, VRF	2015, Natural Gas	2030, HPWH	2015	2040, 24.1 kW
Whittemore Robbins House	32.3	Ensure efficient BMS run times and temperature settings	2015, Natural Gas	2030, Ducted ASHP	2009, Natural Gas	2027, HPWH	N/A	N/A
Stratton Elementary School	272.5	Monitor temperature setpoints and/or add additional control points; Ensure efficient ventilation rates	2016, Natural Gas	2031, VRF	2016, Natural Gas	2031, HPWH	2010	Existing, 117.8 kW
Ed Burns Arena	267.9	Monitor temperature setpoints and/or add additional control points; Ensure adequate ventilation	2016, Natural Gas	2031, GSHP	2016, Natural Gas	2031, GSHP	1969	2040, 216.5 kW
Cemetery Building - Chapel & Office	14.8	Ensure efficient BMS run times and temperature settings; Upgrade lighting controls and fixtures as needed	2016, Oil	2031, Ductless ASHP	2015, Electricity (resistance coils)	2030, HPWH	2015	N/A
Cemetery Garage	0.5	Ensure efficient ventilation rates	2016, Oil	2031, Ductless ASHP	N/A	N/A	2015	N/A

Building	Fiscal Year 2022 Emissions (MT CO ₂ e)	Energy Efficiency (EE) Measures	Space Heating		Domestic Water Heating		Solar PV Potential (kW)	
			Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (roof year)	Solar (installation year, size)
Gibbs School (6th Grade)	302.5	Monitor temperature setpoints and/or add additional control points	2017, Natural Gas	2032, VRF/HP RTUs	2017, Natural Gas	2029, HPWH	2008	2033, 120.3 kW
Jefferson Cutter House	13.6	Monitor temperature setpoints and/or add additional control points	2018, Natural Gas	2033, Ducted ASHP	2018, Natural Gas	2033, HPWH	2014	N/A
Spy Pond Field House	0.1	Recent renovations, no EE measures in near-term	2002, Natural Gas	2033, Ductless ASHP	2002, Natural Gas	2027, HPWH	N/A	N/A
Town Hall & Annex	221.8	Ensure efficient BMS run times and temperature settings; Upgrade lighting controls and fixtures as needed	2019, Natural Gas	2034, GSHP (shared with Robbins Library)	2016, Electricity (resistance coils)	2034, GSHP	2009 (main); 2008 (annex)	2034, 24.1 kW
Robbins Library	188.8	Monitor temperature setpoints and/or add additional control points; Upgrade lighting controls and fixtures as needed	2013, Natural Gas	2034, GSHP (shared with Town Hall)	2013, Natural Gas	2034, GSHP	2013	2038, 24.1 kW
Ottoson Middle School *replaced in next 5-10 years	714.9	Monitor temperature setpoints and/or add additional control points	2014, Natural Gas	2035, GSHP	2014, Natural Gas	2035, GSHP	1998	Existing, 94.24 & 3.36 kW
Parmenter School	169.1	Ensure efficient BMS run times and temperature settings	2021, Oil	2036, VRF	2021, Oil	2036, HPWH	N/A	N/A

Building	Fiscal Year 2022 Emissions (MT CO ₂ e)	Energy Efficiency (EE) Measures	Space Heating		Domestic Water Heating		Solar PV Potential (kW)	
			Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (roof year)	Solar (installation year, size)
Central School/ Community Center	125.5	Ensure efficient BMS run times and temperature settings; Upgrade lighting controls and fixtures as needed	2021, Natural Gas	2036, VRF	2022, Natural Gas	2037, HPWH	1982	N/A
Community Safety Building/ Police	210.1	Monitor temperature setpoints and/or add additional control points; Upgrade lighting controls and fixtures as needed	2023, Natural Gas	2038, VRF	2022, Natural Gas	2037, HPWH	2001	2030, 48.1 kW
DPW Bldg D - Snow Fighting Garage	139.5	Recent renovations, no EE measures in near-term	2024, Natural Gas	2043, VRF	N/A	N/A	1977	N/A
Bishop Elementary School	259.6	Monitor temperature setpoints and/or add additional control points; Upgrade lighting controls and fixtures as needed - Improve insulation	2005, Natural Gas (to be replaced with gas boilers in near-term)	2044, GSHP	2019, Natural Gas	2032, GSHP	2001	2025 (planned), 100 kW
Brackett Elementary School	231.9	Monitor temperature setpoints and/or add additional control points; Upgrade lighting controls and fixtures as needed	2000, Natural Gas (to be replaced with gas boilers in near-term)	2044, VRF	2017, Natural Gas	2032, HPWH	2000	2040, 72.2 kW

Building	Fiscal Year 2022 Emissions (MT CO ₂ e)	Energy Efficiency (EE) Measures	Space Heating		Domestic Water Heating		Solar PV Potential (kW)	
			Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (installation year, fuel type)	Replacement (installation year, heat pump type)	Existing (roof year)	Solar (installation year, size)
DPW Bldg C - Maintenance Garage	44.3	Recent renovations, no EE measures in near-term	2023, Natural Gas	2044, VRF	N/A	N/A	1977	N/A
DPW Bldg E - NEW (Facilities)			2023, Natural Gas	2044, HP Packaged Unit (RTU)	2023, Natural Gas	2033, HPWH	DPW Bldg E - NEW (Facilities)	2025, 222 kW planned
Dallin Elementary School	274.8	Monitor temperature setpoints and/or add additional control points; Upgrade lighting controls and fixtures as needed	2005, Natural Gas (to be replaced with gas boilers in near-term)	2045, VRF	2005, Natural Gas	2025, HPWH	2005	Existing, 117.8 kW
Peirce Elementary School	246.0	Monitor temperature setpoints and/or add additional control points; Improve insulation; Upgrade lighting controls and fixtures as needed	2003, Natural Gas (to be replaced with gas boilers in near-term)	2045, VRF	2002, Natural Gas	2025, HPWH	2002	Existing, 70.7 kW
Bath & Pump Houses - Reservoir	12.9	No EE measures in near-term	N/A	N/A	2021, Electricity (resistance coils)	2036, HPWH	2021	N/A
Carriage House	Unoccupied							
DPW Bldg G - NEW Salt Shed	New Building						2023	N/A

Table 7. Vehicle by vehicle replacement schedule and savings estimates.

Suggested replacement schedule for each of the fleet's vehicles with the replacement year and the type of EV replacement. The table provides annual estimates for fuel and maintenance savings as well as an estimate for avoided greenhouse gas emissions. Total Cost of Ownership (TCO) includes vehicle costs, fuel, maintenance, and charging. The amounts vary depending on the replacement year and assume that, on average, electric vehicles (EVs) are 40 percent less cost-intensive than internal combustion engine (ICE) vehicles.¹⁴

Replace Year	Vehicle Name	Department	Electric Vehicle Description	EV Price (after incentives)	eMPG	TCO	Avoided GHG (MT CO ₂ e, annual)	EV Price Before Incentives
2025	BLUEBIRD - SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$256,500	26	\$311,945	7.5	\$400,000
2025	TOYOTA - PRIUS	INSPECTIONS	Sedan-Chevrolet-Bolt-Class 1	\$18,900	134	\$32,346	1.4	\$31,000
2025	CHEVROLET - COLORADO PICKUP A-7	ENGINEERING	Pickup-Chevrolet-Silverado EV-Class 1-3	\$22,410	67	\$36,436	2.8	\$39,900
2025	FORD-TRANSIT VAN	SCHOOL	Transit_Van-Ford-E-Transit -Class 3	\$39,600	62	\$51,500	1.3	\$55,000
2026	BLUEBIRD - SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$256,500	26	\$311,945	7.5	\$400,000
2026	CHEVROLET - BLAZER A-6	ENGINEERING	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$30,596	97	\$35,831	0.2	\$44,995
2027	CHEVROLET - EQUINOX A-8	ENGINEERING	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$30,596	97	\$37,225	0.8	\$44,995
2028	TOYOTA - PRIUS	INSPECTIONS	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$165,704	24.3	\$31,000
2028	FORD - TAURUS	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$37,086	5	\$31,000
2028	FORD- EDGE	BOH	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$34,158	0.6	\$44,995
2029	TOYOTA - PRIUS	SCHOOL	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$30,636	1.5	\$31,000
2029	TOYOTA - PRIUS	BOH	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$29,031	1.2	\$31,000
2029	FORD - ESCAPE	FIRE	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$37,066	0.8	\$44,995
2030	CHEVROLET - EXPRESS CARGO VAN	FACILITIES	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$179,526	24.3	\$55,000
2030	THOMAS-SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$296,277	8.9	\$400,000
2030	FORD - FUSION	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$22,763	0.3	\$31,000
2030	FORD - FUSION	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$28,023	2	\$31,000
2031	FORD-TRUCK	FIRE	Pickup-Ford-F-450-Class 3-5	\$54,675	67	\$60,401	0.2	\$67,500
2031	FORD - W211 SEDAN	FIRE	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$45,284	0.1	\$49,500
2031	FORD - EXPLORER	SCHOOL	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$42,492	5.9	\$30,932

¹⁴ Forbes. "What it costs to maintain an electric vehicle." *Forbes*, accessed July24, 2024. <https://www.forbes.com/sites/jimgorzelay/2022/10/06/by-the-numbers-what-it-costs-to-maintain-an-electric-vehicle/>

Replace Year	Vehicle Name	Department	Electric Vehicle Description	EV Price (after incentives)	eMPG	TCO	Avoided GHG (MT CO ₂ e, annual)	EV Price Before Incentives
2031	FORD - EXPLORER	FIRE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$32,630	2.7	\$30,932
2031	FORD - EXPLORER	FIRE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$27,047	1	\$30,932
2032	FORD - TRANSIT VAN	LIBRARY	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$62,110	3.8	\$55,000
2032	TOYOTA - PRIUS	INSPECTIONS	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$27,004	0.9	\$31,000
2032	FORD - F250 PICKUP	FACILITIES	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$58,260	3.7	\$49,500
2032	FORD - F350 PICKUP	POLICE	Pickup-Ford-F-250-Class 1-3	\$51,030	67	\$144,367	24.4	\$63,000
2032	FORD - EXPLORER	SCHOOL	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$24,116	0	\$30,932
2032	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$24,415	0.1	\$30,932
2033	FORD - FUSION	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$96,562	24.6	\$31,000
2034	CHEVROLET - EXPRESS VAN	FACILITIES	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$179,526	24.3	\$55,000
2034	CHEVROLET - SILVERADO	FACILITIES	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$26,776	0.5	\$39,900
2034	FORD - F250 PICKUP	FIRE	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$45,637	0.2	\$49,500
2034	TOYOTA - RAV4	INSPECTIONS	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$32,450	0	\$44,995
2035	PIERCE - SABRE	FIRE	Fire_Truck-Pierce-Volterra-Class 8	\$704,700	9	\$945,770	26.9	\$1,000,000
2035	CHEVROLET - CHASSIS TRUCK	DPW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$34,289	2.8	\$39,900
2035	CHEVROLET - SILVERADO	WATER	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$52,020	8.2	\$39,900
2035	CHEVROLET - SILVERADO 62	PARKS	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$25,458	0.1	\$39,900
2035	FORD - F550 AMBULANCE	FIRE	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$149,914	31	\$58,500
2035	FORD - F250 PICKUP	RECREATION	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$55,388	2.9	\$49,500
2035	FORD - FUSION	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$31,741	3.2	\$31,000
2035	FORD - FUSION	FIRE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$24,275	0.8	\$31,000
2035	CHEVROLET - EQUINOX	DPW	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$32,618	0.1	\$44,995
2035	CHEVROLET - EQUINOX	DPW	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$33,988	0.7	\$44,995
2035	CHEVROLET - EQUINOX	DPW	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$32,649	0.1	\$44,995
2035	FREIGHTLINER - TRUCK 58	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$192,681	1.8	\$350,000
2035	CHEVROLET - EXPRESS VAN	RECREATION	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$56,378	2.9	\$55,000
2036	FORD - TRANSIT VAN	DPW	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$46,507	1	\$55,000
2036	SEAGRAVE - FIRE TRUCK	FIRE	Fire_Truck-Pierce-Volterra-Class 8	\$704,700	9	\$811,714	11.4	\$1,000,000
2036	CHEVROLET - SILVERADO	WATER	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$49,966	7.6	\$39,900
2036	CHEVROLET - SILVERADO PICKUP	WAT/SEW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$34,394	2.8	\$39,900

Replace Year	Vehicle Name	Department	Electric Vehicle Description	EV Price (after incentives)	eMPG	TCO	Avoided GHG (MT CO ₂ e, annual)	EV Price Before Incentives
2036	FORD- F550	DPW	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$61,904	3.1	\$58,500
2036	CHEVROLET - SILVERADO	DPW	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$50,049	7.6	\$39,900
2036	CHEVROLET - TAHOE	POLICE	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$33,981	0.7	\$44,995
2036	FORD - EXPLORER	FIRE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$36,051	3.8	\$30,932
2036	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$100,775	24.5	\$30,932
2036	FREIGHTLINER - M2106V 53	DPW	Heavy_Duty_Truck_7-Freightliner -EM2-Class 7	\$109,350	12	\$126,427	2.6	\$250,000
2037	CHEVROLET- CITY EXPRESS VAN	FACILITIES	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$75,486	6.1	\$55,000
2037	FORD - TRANSIT VAN	DPW	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$53,401	2.3	\$55,000
2037	SILVERADO - CHEVROLET	DPW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$40,085	4.6	\$39,900
2037	FORD - F550 TRUCK	DPW	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$67,315	4.8	\$58,500
2037	FORD- F550	DPW	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$74,005	6.9	\$58,500
2037	CHEVROLET- SILVERADO	FACILITIES	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$43,635	5.7	\$39,900
2037	CHEVROLET-COLORADO	HIGHWAY	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$47,172	6.7	\$39,900
2037	CHEVROLET - SILVERADO	PARKS	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$26,811	0.5	\$39,900
2037	INTERNATIONAL- 7400 TRUCK (SPREADER) 55	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$200,288	2.6	\$350,000
2038	CHEVROLET- SILVERADO	DPW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$38,044	4	\$39,900
2038	FORD - F550 TRUCK	DPW	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$67,990	5	\$58,500
2038	FORD- F-550	DPW	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$77,188	7.9	\$58,500
2038	CHEVROLET - SILVERADO	DPW	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$52,175	8.3	\$39,900
2038	CHEVROLET- SILVERADO	PARKS	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$38,910	4.2	\$39,900
2038	CHEVROLET- SILVERADO	HIGHWAY	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$48,033	7	\$39,900
2038	CHEVROLET- SILVERADO	HIGHWAY	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$29,776	1.4	\$39,900
2038	FORD - EXPLORER	FIRE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$47,051	7.4	\$30,932
2038	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$62,420	12.3	\$30,932
2038	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$66,248	13.5	\$30,932
2038	INTERNATIONAL - SANDER 51	HIGHWAY	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$185,369	0.4	\$350,000
2039	CHEVROLET- EXPRESS VAN	DPW	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$58,963	3.2	\$55,000
2039	FORD- TRANSIT VAN	WAT/SEW	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$48,808	1.4	\$55,000
2039	CHEVROLET - 2500 CREW TRUCK	CEMETERY	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$25,567	0.2	\$39,900
2039	CHEVROLET - TRAVERSE	POLICE	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$87,756	24.6	\$44,995

Replace Year	Vehicle Name	Department	Electric Vehicle Description	EV Price (after incentives)	eMPG	TCO	Avoided GHG (MT CO ₂ e, annual)	EV Price Before Incentives
2039	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$95,848	23	\$30,932
2040	CHEVROLET - EXPRESS VAN A-15	FACILITIES	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$179,526	24.3	\$55,000
2040	CHEVROLET - SILVERADO	WAT/SEW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$26,465	0.4	\$39,900
2040	FORD-ECONOLINE	COA	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$89,299	10.1	\$55,000
2040	FORD - FUSION	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$23,747	0.6	\$31,000
2040	FORD - FUSION	POLICE	Sedan-Chevrolet-Bolt-Class 1	\$17,010	134	\$23,226	0.4	\$31,000
2041	E ONE - TYPHOON	FIRE	Fire_Truck-Pierce-Volterra-Class 8	\$704,700	9	\$862,799	17.3	\$1,000,000
2041	SEAGRAVE - AERIAL FIRE TRUCK	FIRE	Fire_Truck-Pierce-Volterra-Class 8	\$704,700	9	\$716,981	0.5	\$1,000,000
2041	CHEVROLET - SILVERADO	TREE	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$25,735	0.2	\$39,900
2041	CHEVROLET- SILVERADO	WATER	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$26,737	0.5	\$39,900
2041	CHEVROLET - SILVERADO	PARKS	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$25,507	0.1	\$39,900
2041	CHEVROLET - SILVERADO	DPW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$39,696	4.5	\$39,900
2041	CHEVROLET- SILVERADO	DPW	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$43,940	5.7	\$39,900
2041	FORD F150	POLICE	Pickup-Ford-F150 Lightning-Class 1-3	\$20,229	67	\$109,545	24.4	\$39,974
2041	FORD -F250	FIRE	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$45,028	0	\$49,500
2041	FORD - ESCAPE SE	DPW	SUV-Chevrolet-Blazer 2LT-Class 1-3	\$27,536	97	\$33,418	0.2	\$44,995
2041	FREIGHTLINER - DUMP TRUCK	WAT/SEW	Dump_Truck-Lion Electric-Dump Truck -Class 8	\$214,650	16	\$263,584	9.2	\$395,000
2041	FREIGHTLINER - SD	HIGHWAY	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$205,935	4.3	\$350,000
2041	FREIGHTLINER - TRUCK	HIGHWAY	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$202,005	3.5	\$350,000
2041	INTERNATIONAL - DUMP	PARK/TREE	Dump_Truck-Lion Electric-Dump Truck -Class 8	\$214,650	16	\$311,617	19.3	\$395,000
2042	THOMAS-SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$273,153	6.1	\$400,000
2042	CHEVROLET- SILVERADO	WATER	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$40,242	5.1	\$39,900
2042	CHEVROLET CK3500	PARKS	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$29,377	1.5	\$39,900
2042	CHEVROLET - SILVERADO	PARK/TREE	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$44,342	6.5	\$39,900
2042	FORD- F550	FACILITIES	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$64,638	3.8	\$58,500
2042	FORD- F550	PARKS	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$100,819	17.1	\$58,500
2042	THOMAS-BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$381,314	23.9	\$400,000
2042	CHEVROLET - COLORADO 4WD	WATER	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$48,767	8	\$39,900
2042	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$24,627	0.2	\$30,932

Replace Year	Vehicle Name	Department	Electric Vehicle Description	EV Price (after incentives)	eMPG	TCO	Avoided GHG (MT CO ₂ e, annual)	EV Price Before Incentives
2042	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$28,196	0.2	\$30,932
2042	FREIGHTLINER - 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$195,791	1.9	\$350,000
2042	INTERNATIONAL - DUMP TRUCK	DPW	Dump_Truck-Lion Electric-Dump Truck -Class 8	\$214,650	16	\$234,870	2.8	\$395,000
2042	FORD - TRANSIT	SCHOOL	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$160,813	24.3	\$55,000
2043	E-ONE - FIRE TRUCK	FIRE	Fire_Truck-Pierce-Volterra-Class 8	\$704,700	9	\$823,286	15.9	\$1,000,000
2043	CHEVROLET- SILVERADO	DPW	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$55,461	11.6	\$39,900
2043	CHEVROLET-SILVERADO	DPW	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$45,557	7.8	\$39,900
2043	CHEVROLET - SILVERADO	DPW	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$28,562	1.3	\$39,900
2043	FORD- F250	BLDG. MAINT.	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$59,339	5	\$49,500
2043	FORD - EXPLORER HYBRID	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$39,864	4.9	\$30,932
2043	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$43,629	6.4	\$30,932
2043	FREIGHTLINER - 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$200,101	4	\$350,000
2043	FREIGHTLINER - M2	DPW	Heavy_Duty_Truck_7-Freightliner -EM2-Class 7	\$109,350	12	\$114,915	0.2	\$250,000
2044	PIERCE - LADDER TRUCK	FIRE	Fire_Truck-Pierce-Volterra-Class 8	\$704,700	9	\$792,287	13.1	\$1,000,000
2044	FORD- F550	FIRE	Pickup-Ford-F-550-Class 5-6	\$47,385	67	\$62,611	4.7	\$58,500
2044	THOMAS - SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$286,163	10.6	\$400,000
2044	CHEVROLET - SILVERADO	DPW	Pickup-Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$30,663	2.4	\$39,900
2044	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$27,691	0.1	\$30,932
2044	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$25,096	0.5	\$30,932
2044	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$77,761	24.5	\$30,932
2044	FREIGHT - M2 AERIAL	PARK/TREE	Heavy_Duty_Truck_7-Freightliner -EM2-Class 7	\$109,350	12	\$134,418	6.2	\$250,000
2045	FORD-TRANSIT VAN	POLICE	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$123,923	24.3	\$55,000
2045	FORD - TRANSIT	BLDG. MAINT.	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$123,923	24.3	\$55,000
2045	CHEVROLET 3500 DUMP	PARKS	Chevrolet-Silverado EV-Class 1-3	\$20,169	67	\$73,298	24.5	\$39,900
2045	FORD - F250 PICKUP	FACILITIES	Pickup-Ford-F-250-Class 1-3	\$40,095	67	\$45,061	0	\$49,500
2045	FORD - EXPLORER	POLICE	Police_Vehicle-Ford-Mustang Mach-E-Class 1	\$19,182	93	\$70,090	24.5	\$30,932
2045	FTL - 108SD	HIGHWAY	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$195,803	4	\$350,000
2045	FREIGHTLINER - 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$202,946	6.2	\$350,000

Replace Year	Vehicle Name	Department	Electric Vehicle Description	EV Price (after incentives)	eMPG	TCO	Avoided GHG (MT CO ₂ e, annual)	EV Price Before Incentives
2045	FREIGHTLINER - 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$192,262	2.9	\$350,000
2046	THOMAS- SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$330,761	28.1	\$400,000
2046	FORD - F350 DUMP	HIGHWAY	Pickup-Ford-F-350-Class 3-4	\$51,030	67	\$56,102	0.1	\$63,000
2046	FREIGHTLINER - 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$194,817	4.4	\$350,000
2046	INTERNATIONAL - MV607LP PICK UP	SCHOOL	Heavy_Duty_Truck_7-Freightliner -EM2-Class 7	\$109,350	12	\$178,300	27.4	\$250,000
2047	THOMAS - SCHOOL BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$310,829	28.1	\$400,000
2047	FORD - E350 TRANSIT VAN	COA	Transit_Van-Ford-E-Transit -Class 3	\$35,640	62	\$39,768	0.1	\$55,000
2047	FRHT - 114SD	WATER	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$198,549	7.7	\$350,000
2047	FRHT- M2106	TREE	Heavy_Duty_Truck_7-Freightliner -EM2-Class 7	\$109,350	12	\$120,514	3.9	\$250,000
2048	THOMAS- BUS	SCHOOL	School_Bus-Bluebird-Vision-Class 7	\$230,850	26	\$290,897	28.1	\$400,000
2048	FREIGHTLINER - 108SD Plow	HIGHWAY	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$225,750	27.7	\$350,000
2048	FREIGHTLINER- 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$184,525	2.1	\$350,000
2049	FREIGHTLINER - 108SD	DPW	Heavy_Duty_Truck_8-Volvo-VNR Electric-Class 8	\$178,200	16	\$183,374	2.9	\$350,000
2049	FREIGHTLINER - 108SD Dump	HIGHWAY	Dump_Truck-Lion Electric-Dump Truck -Class 8	\$214,650	16	\$243,212	27.7	\$395,000



**HVAC & ELECTRICAL
SYSTEMS EVALUATION
ARLINGTON PUBLIC SCHOOLS
Hardy Elementary School**

Prepared For:

**Michael Powderly
51A Grove St.
Arlington, MA 02476**

May 24, 2024



SUMMARY

This report is based on a brief site visit to the above-mentioned locations, not involving any extensive exploratory work or building life safety assessment with respect to a future building alteration. The HVAC and Electrical systems were visually noted and inspected for signs of deterioration and major compliance issues.

HARDY ELEMENTARY SCHOOL – 52 Lake St. Arlington, MA 02474

The school consists of approximately 64,000 square feet of space with large classrooms, small Classrooms, offices, Kitchen/Cafeteria, gymnasium and common spaces on three levels.

Existing Conditions

HVAC

Central System

Hydronic heat is provided by (2) 3562 MBH (5189MBH NG Input) gas fired low efficiency atmospheric boilers (Smith) complete with glycol mixing system. The boilers appear to serve the building via single primary circulation loop. The boilers and associated appurtenances are approximately 25 years old. The boiler flue vents are run horizontally to the exterior of the building and vertically up to above the roof line by double wall stainless steel flue venting. Hot water fin tube radiation is distributed through out the perimeter of the building complete with zone control valves and thermostats for each room.

Classrooms

The majority of the building is served by four separate system types.

System Type 1:

RTU-1, 1A and 2 serve the east side of the building via supply and return air ductwork distributed vertically into the building and to vertical duct shafts down to the ground level floor. Supply and Return Air ductwork is distributed into each space by horizontal ductwork systems terminating at ceiling mounted supply diffusers and return air grilles. These roof top units do not have any cooling capability and are provided heat by integral hot water coils. These roof top units are approximately 25 years old.

System Type 2:

RTU-3, 4, 5 and 6 serve the central and western most portion of the building via supply and return air ductwork distributed vertically into the building and to vertical duct shafts down to the ground level floor. Supply and Return Air ductwork is distributed into each space by horizontal ductwork systems terminating at ceiling mounted supply diffusers and return air grilles. These roof top units do not have any cooling capability and are provided heat by separate hot water reheat coils. These roof top units are approximately 25 years old.

System Type 3:

RTU-7, 8 and 9 serve the central and north western portion of the building via supply and return air ductwork distributed vertically into the building and to vertical duct shafts down to the ground level floor. Supply and Return Air ductwork is distributed into each space by horizontal ductwork systems terminating at ceiling mounted supply diffusers and return air

grilles. These roof top units are capable of cooling by packaged DX cooling coils and split air cooled condensing units. They are provided heat by separate hot water reheat coils. These roof top units are approximately 25 years old.

System Type 4:

The newer construction classrooms (constructed approximately 2019) are provided ventilation and exhaust via roof mounted gas fired packaged DX cooling Energy Recovery Unit. Heating and Cooling is provided to this addition by a VRF Air Source Heat Pump piped to horizontal concealed fan coils in each classroom controlled by wall mounted thermostats in each zone.

Gym

The gym is provided heating and outdoor air ventilation by a hot water indoor air handler with supply air ductwork distributed horizontally through out the space. Outdoor air ventilation is ducted from an outdoor air intake louver to the return air side of the air handler. Pressure relief is provided by roof mounted exhaust fans. The age of the air handler system is not confirmed but may be as old as 25 years.

Bathrooms

Bathrooms are provided code required exhaust by roof mounted exhaust fans ducted vertically down to each bathroom. Each bathroom is provided with heat by recessed wall mounted convector units and fin tube radiation.



Boiler Flue Vents and Bathroom Exhaust Fan



Split Condensing Units and RTU-7,8 and 9



Smith Boilers and Flue Vents



Daikin Wall Mount Fan Coil

ELECTRICAL

Main Electrical Service consists of an incoming service that originate from utility pole. Secondary feeders extend underground from the utility pole riser to the building's main electrical room and terminate at the main switchgear. The wiring could not be observed due to being hidden within the existing conduits and equipment, but is presumed to be in poor condition due to the age and condition of the switchgear.

Service consists of a 1200Amp, 120/208Volt, 3-Phase service with main disconnect switch, associated utility metering, and 120/208Volt panelboard that feeds mechanical equipment and disconnects within the building. The equipment appears original to the building, is in fair condition; however; does not have the capacity to accommodate the proposed future systems.

Electrical Distribution Equipment consists of distribution panelboards located throughout the building fed from the building's main switchgear to feed all general power, lighting and mechanical equipment. The majority of equipment appears original to the building and is in fair condition.



Main Switchgear



Typical Panelboard



Fire Alarm Control Panel

Recommendations

HVAC

System's 1 - 3

The existing RTU systems are past their useful life expectancy and are to be removed in their entirety. Replace each existing roof top unit with roof mounted Energy Recovery Ventilator units with package DX coil heating and cooling piped to a split air source heat pump. The roof mounted ERV's will provide code required ventilation and exhaust to each space using the existing supply and return ductwork.

A new heating and cooling system shall be provided throughout via roof mounted Heat Recovery type VRF Air Source Heat Pumps. Each heat pump shall be piped to branch selector boxes at the interior of the building with an insulated refrigerant piping system. The branch selector boxes will then be piped to horizontal concealed or ductless fan coil systems located in each classroom and zone. Where horizontal concealed fan coils are utilized, supply air shall be ducted to the space by an interconnected and insulated ductwork system terminating in ceiling mounted supply air diffusers. Return air shall be ducted from the space to the fan coil by interconnected insulated return air ductwork from a ceiling mounted return air grille.

System 4

The existing Energy Recovery Ventilator unit is well within its useful life expectancy, however in order to de-carbonize this gas fired ERV would need to be replaced with a new roof mounted Energy Recovery Ventilator unit with package DX coil heating and cooling piped to a split air source heat pump. The existing VRF system is also well within its useful life expectancy and can remain in its entirety.

ELECTRICAL

Main Electrical Service shall include a new 2000Amp, 120/208Volt, 3-Phase, 4-Wire service from a utility pad-mounted transformer. Secondary feeders [6 sets of 4#600kCMIL (aluminum) in 4-inch conduit] shall extend underground from the utility transformer to the building's main electrical room and terminate at the main switchgear. Main switchgear shall consist of a 2000Amp, 3-Pole main circuit breaker/current transformer cabinet with utility metering and distribution section(s) to feed all existing distribution panelboards, proposed mechanical equipment with large loads and new panelboards associated with the proposed mechanical systems.

Electrical Distribution Equipment shall include new panelboards located throughout the building with all associated circuit breakers and branch circuitry to accommodate the proposed mechanical equipment. All proposed panelboards will be rated 120/208Volt, 3-Phase, 4-Wire.

End of Section



TOWN OF ARLINGTON

Electrification & Air Quality Master Plan

January 2023



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COMMON ACRONYMS & ABBREVIATIONS

AHU: Air Handling Unit

APS: Arlington Public Schools

ASHRAE: American Society of Heating, Refrigerating and Air-Conditioning Engineers

BAS: Building Automation System

BERDO: Boston Emissions Reduction Disclosure Ordinance

CMTA: Consulting engineering firm, hired for this study

Cx: Commissioning

DOAS: Dedicated Outdoor Air System

Dx: Direct Expansion Cooling

EPA: Environmental Protection Agency

EUI: Energy Use Intensity, building efficiency measured in thousands of British Thermal Units per square foot per year (kBtu/SF/yr)

GHG: Greenhouse Gases

GHI: Global Horizontal Irradiance

HVAC: Heating, Ventilation, and Air Conditioning

IRA: Inflation Reduction Act

ISO-NE: Independent System Operator New England, the New England electric grid

ITC: Investment Tax Credit

kBTU: Kilo British Thermal Units, unit for energy

kWh: Kilowatt Hour, unit of energy

LCCA: Life Cycle Cost Analysis

LED: Light Emitting Diode

MSBA: Massachusetts School Building Authority

MTCDE: Metric Tons of Carbon Dioxide Equivalent

NREL: National Renewable Energy Laboratory

NZAP: Net Zero Action Plan, a publication by the Town of Arlington released in February of 2021

PV: Photovoltaic

RTU: Rooftop Unit

VRF: Variable Refrigerant Flow

EXECUTIVE SUMMARY

ABSTRACT
GOALS & OBJECTIVES
SUMMARY OF FINDINGS
THIRTY YEAR LIFE CYCLE COSTS
STRATEGIC ROADMAP
FUNDING FLOWS



ABSTRACT

The rate of change of carbon dioxide levels in the atmosphere is unparalleled. The US Energy Information Administration estimates 5.1 billion metric tons of energy related carbon were emitted in 2019 in the United States. Buildings are responsible for 40% of this energy consumption. Proactive efforts to improve new and existing building stock, like the Town of Arlington's 2021 Net Zero Action Plan (NZAP), released in February of 2021, will play a huge role to mitigate climate change. The Town of Arlington has pledged to reduce greenhouse gas (GHG) emissions to net zero emissions by 2050. The Town's NZAP recommends that all Town buildings be made fully electric, and that all municipal electricity be supplied from renewable sources.

Electrifying will achieve a reduction in local combustion and thus GHG emissions at the Town level. Importantly, a reduction in combustion improves air quality, which has community health benefits. The negative impacts of poor outdoor air quality include heart attacks, asthma attacks, bronchitis, hospital and emergency room visits, work and school days lost, restricted activity days, respiratory symptoms, and premature mortality.

Arlington Public Schools (APS) understands the link between air quality and wellness, and has committed to providing healthy and productive learning and working environments for all students, faculty, staff and visitors. The Town's building electrification goal will support improved indoor air quality by reducing exposure to on-site fossil fuel burning and/or energy consumption. In addition, APS's goal of improving air quality and ventilation, while ensuring comfortable temperatures, will improve learning and working environments while also minimizing the spread of COVID-19 and other airborne illnesses.

The Town of Arlington commissioned CMTA, Inc. to prepare a comprehensive Electrification and Air Quality Master Plan focusing on engineering and economic analyses of current and proposed heating, cooling, ventilation, and air filtration systems for Bishop Elementary, Brackett Elementary, Hardy Elementary, Peirce Elementary, Dallin Elementary, and Ottoson Middle School. Studying these six schools was in direct response to the NZAP and health concerns raised by the COVID-19 pandemic. This Master Plan provides a comprehensive roadmap that will help the Town chart a course to achieve ambitious targets at the six school buildings.

The Master Plan is broken down into three phases:

Phase I – Building System Inventory and Assessment

Phase II – Alternative Electrification and Air Quality Improvement Options

Phase III – Investment Plan

The authors commend these actions towards adopting more sustainable facilities. We would like to extend a special thanks for the support from Town personnel Jim Feeney, Talia Fox, Robert Behrent, Fergal O'Brien, and Ken Pruitt for their assistance during the preparation of this Master Planning Document.



GOALS & OBJECTIVES

The purpose of this Master Plan is to develop a path forward for six schools in the Town of Arlington to achieve net zero GHG emissions by the year 2050. The Town’s NZAP recommends the electrification of all Town buildings, but this study focuses on these six schools because they have not been recently renovated. Therefore, electrification could occur within the cycle of regularly scheduled capital upgrades. In addition to electrification, achieving the Town’s goals will require capital investments to achieve drastic reductions in both energy demand and consumption. The study also addresses occupant satisfaction and wellness, focusing on heating, cooling, ventilation, and air filtration system concerns raised by the COVID-19 pandemic.

Key over-arching goals and objectives for this Master Plan include:

1. Develop timelines and cost estimates to eliminate fossil fuel consumption and electrify and improve indoor air quality at six school buildings per the Town’s 2021 (NZAP). This involves heating, ventilating, and air conditioning (HVAC) systems, domestic water heating, and kitchen/foodservice functions.
2. Establish options, feasibility, and priorities for drastic energy reductions and electrification at each site while adding air conditioning and mechanical ventilation throughout. Discussions with the Town narrowed the options for all electric HVAC systems to either a variable refrigerant flow system or a ground source heat pump system. These choices do not reflect all options for electrified systems, but offer the study of an air-cooled system type and a water-cooled system type. Hybrid options exist but were not studied.
3. Provide a practical evaluation of on-site photovoltaics that enables the Town to take the next steps for budgeting and planning purposes. Attaining on-site net zero energy is not required.

For the Town to reach its stated goal of carbon neutrality by 2050, there are several programs of investment to consider for direct and indirect carbon emission reductions, including:

1. Investment in physical infrastructure, deferred maintenance, and efficiency improvements that leverage utility incentives, where applicable. An emphasis on increasing overall efficiency and thoughtful system design is critical in making electrification financially viable.
2. Investment in on-site renewable energy sources to lower energy costs and reduce emissions associated with electricity production (while the electric grid still uses some fossil fuels), where feasible.
3. Purchase of renewable energy credits to offset any remaining electricity-related emissions.
4. Leverage the tax provisions of the Inflation Reduction Act of 2022 allowing state and local governments to receive “direct pay” tax credit reimbursements for ground source heat pump and solar photovoltaic (PV) systems.



SUMMARY OF FINDINGS

The intent of the study was to identify options for the Town to electrify five elementary schools and Ottoson Middle School. This includes evaluating electrification and renewable energy options, providing cost data, and suggesting the order in which improvements at each school should be implemented. Throughout the process, CMTA and the Town have agreed that the key to electrification is to focus on energy efficiency and energy reduction first. Following efficiency improvements, systems can be electrified and remaining GHG emissions can be offset through the purchase of offsets or installation of clean energy generating systems because the Town has limited real estate to install solar PV systems. After careful evaluations of PV ownership, the Town noted that procuring offsets may be more viable following electrification of all buildings and before the grid becomes 100% clean. The Town aims to achieve net zero emissions but does not seek to achieve net zero energy. Specific energy conservation measures are recommended in the Phase II section of this report.

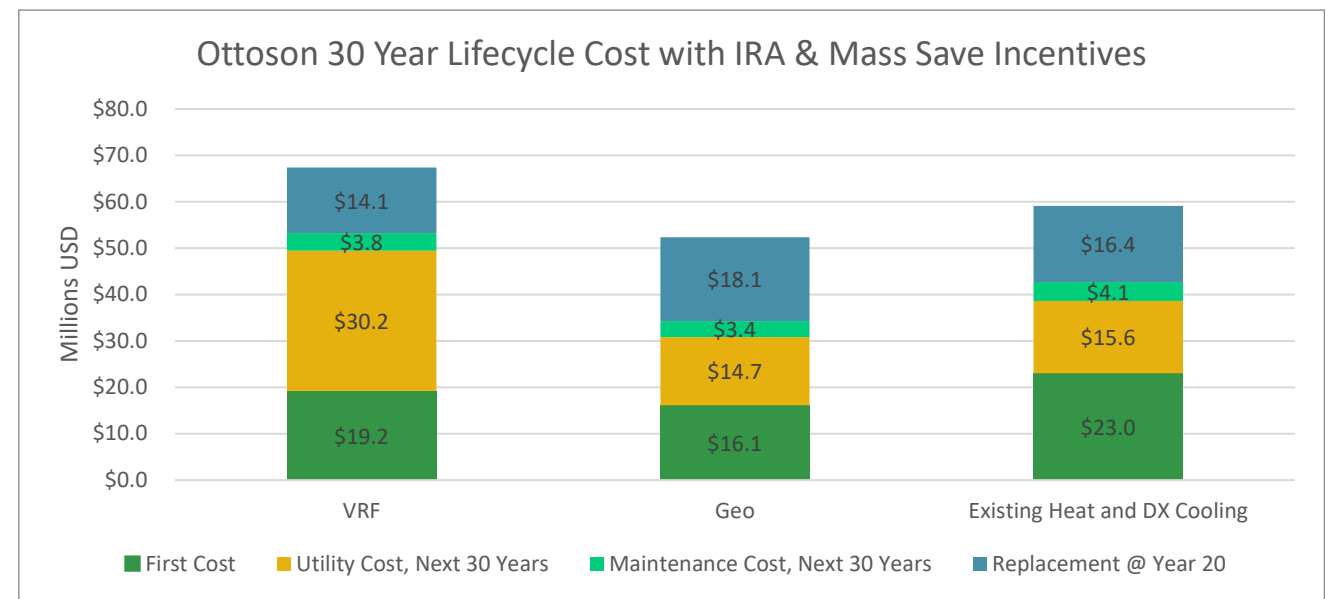
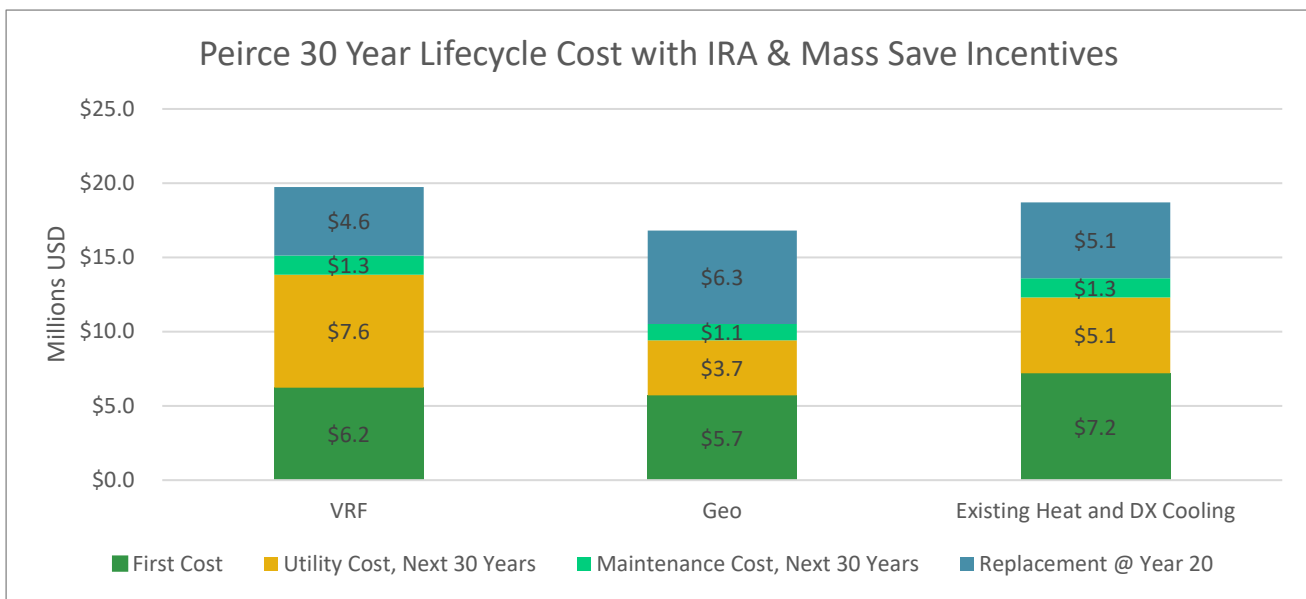
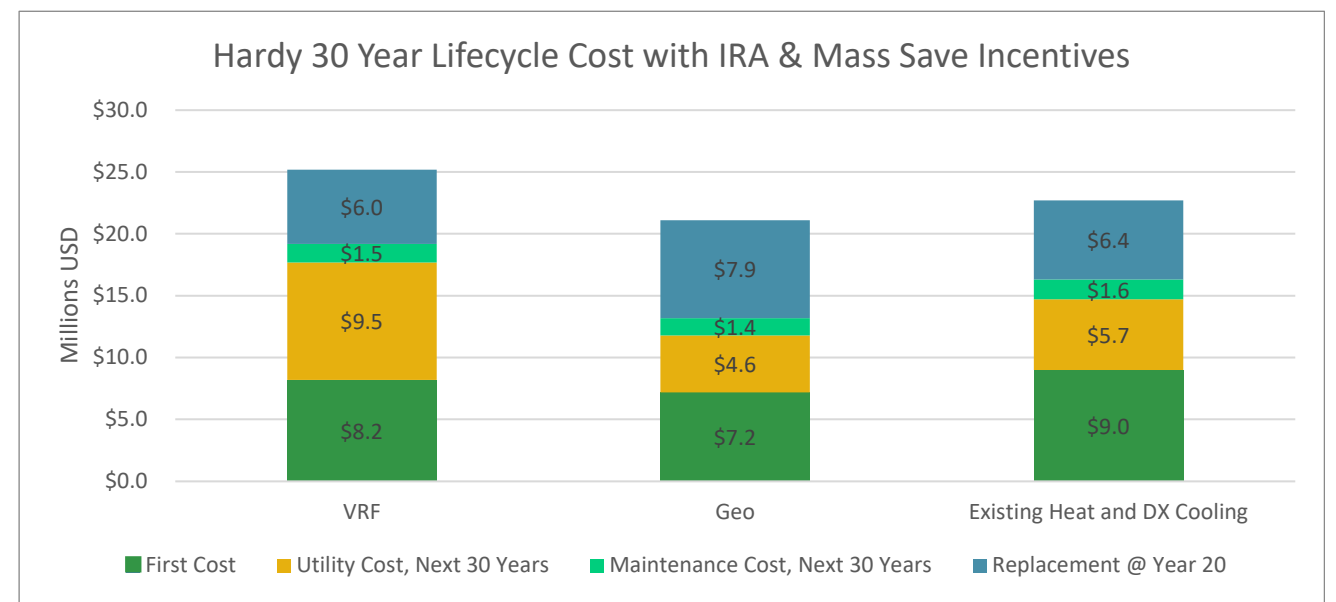
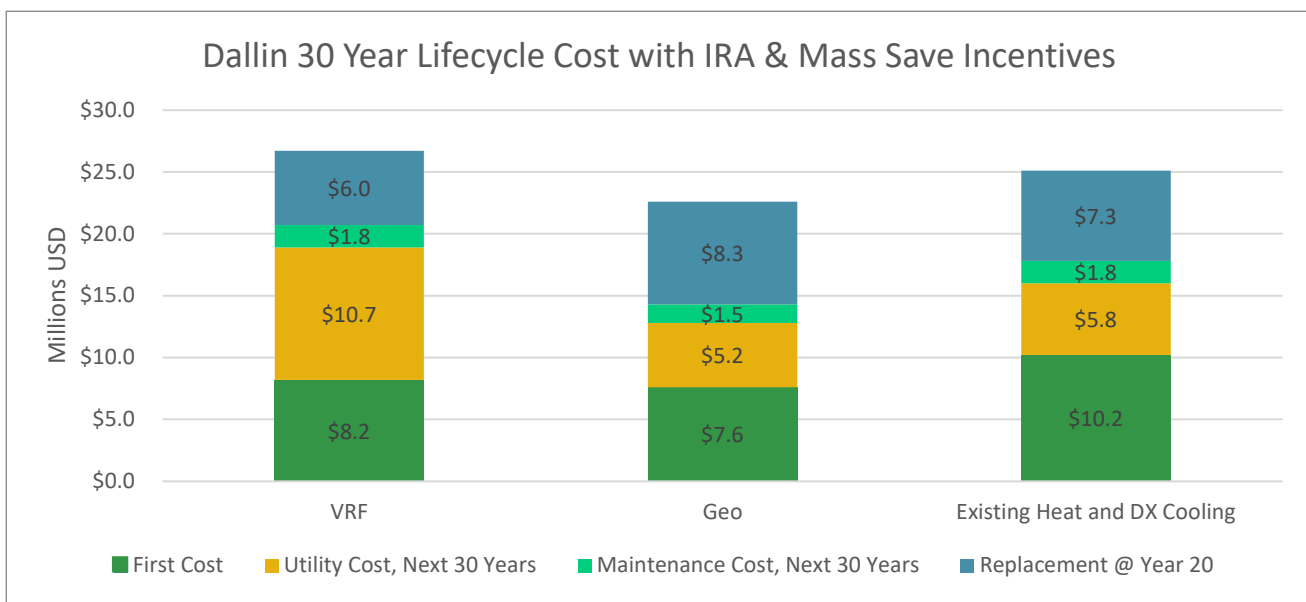
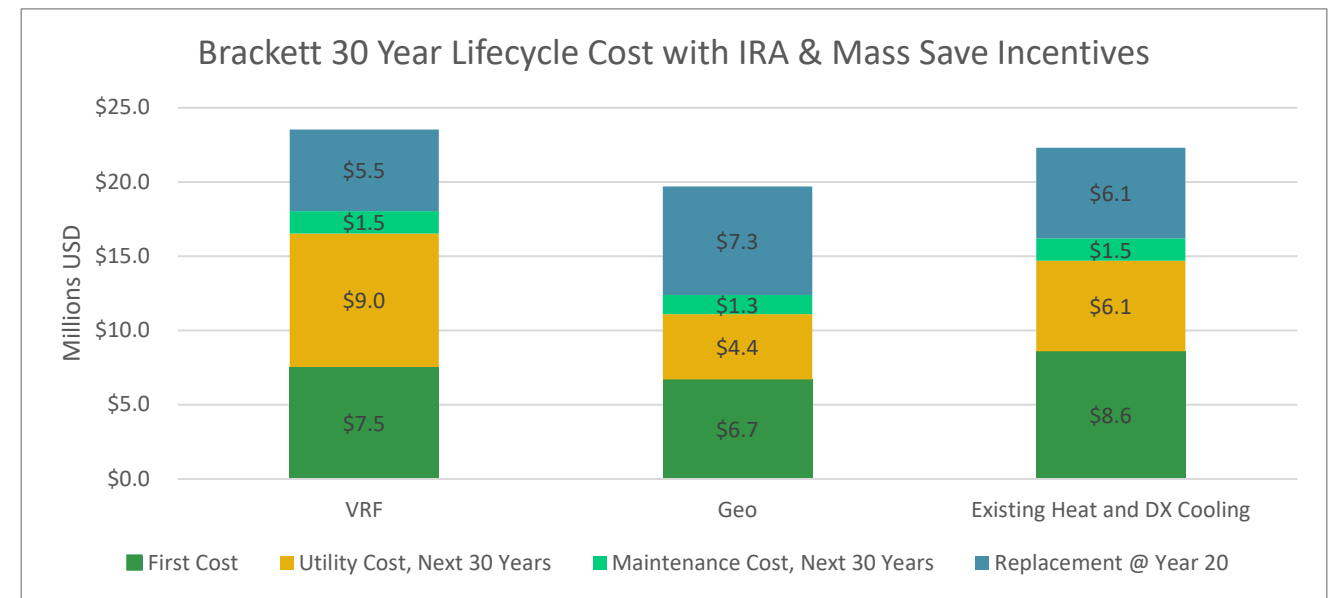
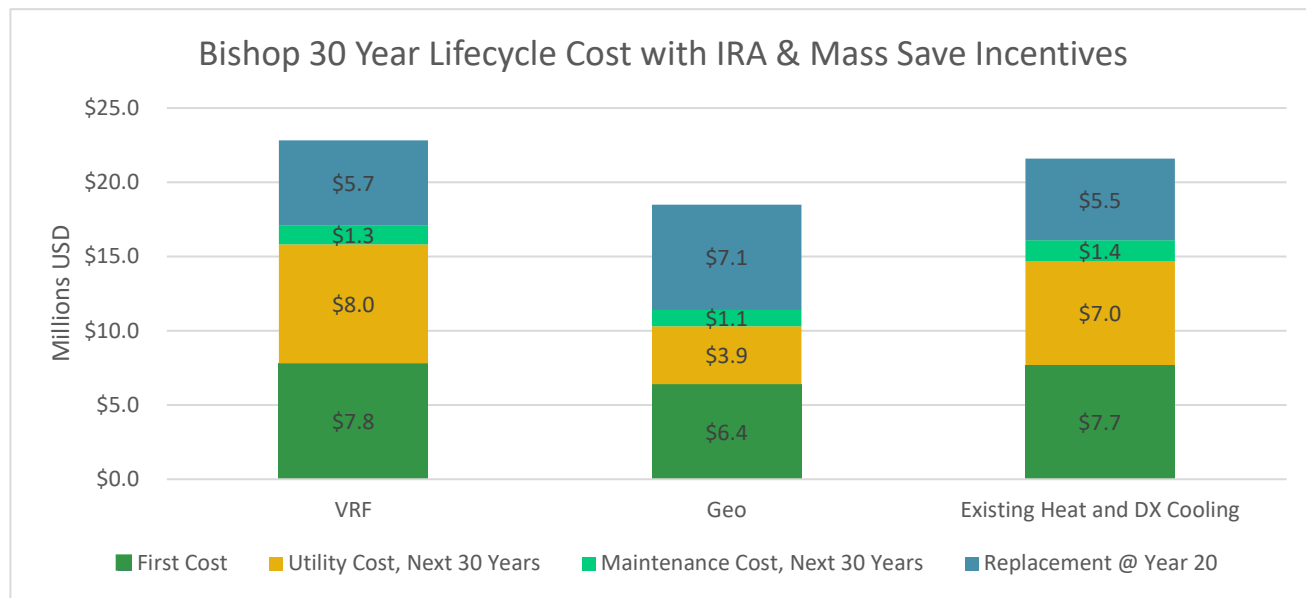
This Master Plan evaluated two options: a variable refrigerant flow system and a ground source heat pump system. These two systems were selected to represent an air source and water source option. Although hybrid options exist, other systems were not evaluated based on limitations in scope. For each of the systems, a conceptual design was completed. The narrative and zoning diagrams associated with each system are available in Appendices A and B. Equipment cut sheets were solicited from vendors and are available in Appendix C. These informed a cost estimation exercise. The results are available in Appendix D.

System selection is not within the scope of this Master Plan. The analysis in the Phase III section of this report is meant to provide the Town with data to make an informed decision. Three cases were analyzed: a variable refrigerant flow (VRF) option, a ground source heat pump option, and a business as usual option. The business as usual case maintains existing gas heat and adds air conditioning via direct expansion (DX) cooling. This offers a point of comparison for the minimum cash flows that would be required to upkeep existing systems and add mechanical cooling to the schools.

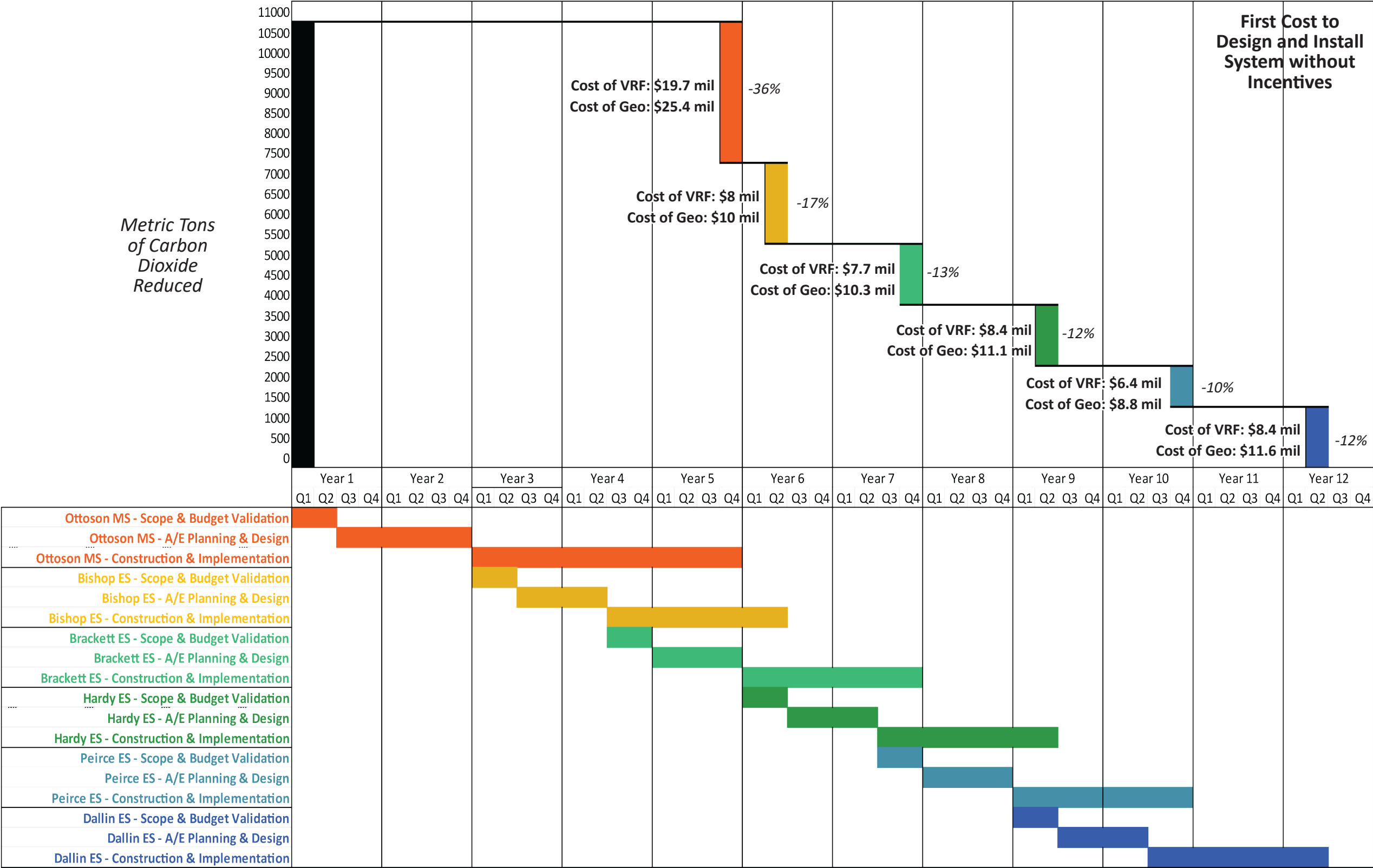
CMTA recommends selecting a system based on life cycle cost, rather than first cost. A 30 year life cycle cost analysis (LCCA) was performed and includes: initial project costs to design and install an all-electric system, utility costs, maintenance costs, and 20-year partial replacement costs. The LCCA also includes the estimated incentives from the Inflation Reduction Act and the MassSave incentive program run by New England utilities. See the stacked bar charts reflecting these costs for each of the schools on the following page. Details on methodology and assumptions are available in the Phase III portion of this report. The trends show that ground source heat pump systems are more expensive than VRF when comparing first cost, but more affordable over the system lifespan, even more so when incentives are considered. For instance, the geothermal IRA incentives for Ottoson and Bishop almost cover the cost to upgrade Brackett. See the stacked bar charts reflecting these costs for each of the schools on the following page.

Using the information gathered in Phases I and II, the CMTA team developed a framework to establish a recommended order for school renovation, shown in the Strategic Roadmap on page nine. This study recommends that Ottoson Middle School seek Massachusetts School Building Authority (MSBA) funds for a more comprehensive building renovation before funds are invested in an HVAC electrification retrofit.

30-YEAR LIFE CYCLE COST WITH IRA & MASS SAVE



STRATEGIC ROADMAP



The analysis presented optimized the ranking and sequencing of projects based on order of magnitude of cost, emissions reduction potential, and need for infrastructure renewal. These recommendations are detailed in the Phase III section of this report. While the established goal of electrification by 2050 may seem far in the future, when considering the project scope to retrofit six schools, factoring in the design and construction period, as well as the planning for funding outlays of this magnitude in advance, the Town should initiate this process early. The chart above is the culmination of all three phases. It shows the recommended project phasing, the impact project completion would have on site emissions in the Town of Arlington, and the first cost for each viable, fully electrified option.

FUNDING FLOWS

	Variable Refrigerant Flow		Ground Source Heat Pump	
	Spend	Rebate/Incentive	Spend	Rebate/Incentive
Year 1				
Ottoson MS	\$ (19,700,000.00)		\$ (25,400,000.00)	
Year 2				
Year 3				
Bishop ES	\$ (8,000,000.00)		\$ (10,000,000.00)	
Year 4				
Brckett ES	\$ (7,700,000.00)		\$ (10,300,000.00)	
Year 5				
Year 6				
Hardy ES	\$ (8,400,000.00)		\$ (11,100,000.00)	
Ottoson MS Mass Save Incentive		\$ 438,000.00		\$ 1,655,000.00
Ottoson MS IRA Incentive		\$ -		\$ 7,600,000.00
Year 7				
Peirce ES	\$ (6,400,000.00)		\$ (8,800,000.00)	
Bishop ES Mass Save Incentive		\$ 169,000.00		\$ 599,000.00
Bishop ES IRA Incentive		\$ -		\$ 3,000,000.00
Year 8				
Brckett ES Mass Save Incentive		\$ 151,000.00		\$ 548,000.00
Brckett ES IRA Incentive		\$ -		\$ 3,100,000.00
Year 9				
Dallin ES	\$ (8,400,000.00)		\$ (11,600,000.00)	
Year 10				
Hardy ES Mass Save Incentive		\$ 195,000.00		\$ 586,000.00
Hardy ES IRA Incentive		\$ -		\$ 3,300,000.00
Year 11				
Peirce ES Mass Save Incentive		\$ 159,000.00		\$ 459,000.00
Peirce ES IRA Incentive		\$ -		\$ 2,600,000.00
Year 12				
Dallin ES Mass Save Incentive		\$ 189,000.00		\$ 529,000.00
Dallin ES IRA Incentive		\$ -		\$ 3,500,000.00
Totals	\$ (58,600,000)	\$ 1,301,000	\$ (77,200,000)	\$ 27,476,000
Net Spend	\$ (57,299,000)		\$ (49,724,000)	

The table above demonstrates the first cost allocations and expected incentives for each system. First cost represents the cost for either system in year one of a project. For any incentives, disbursement is typically allocated one year after the project is completed. The delay reflects the estimated time required to conduct a cost segregation study.

PHASE I BUILDING SYSTEM INVENTORY & ASSESSMENT

PHASE I OBJECTIVES

The CMTA team spent time at each of the six school facilities to gain a general understanding of the existing conditions of the buildings. We visually spot checked the major systems and recorded details of each building to understand the installation and operations including the HVAC systems, building management systems, air filtration, main electrical services, and domestic water heating systems.

During the site visits, CMTA performed a high-level review of the building envelope (roofs, walls, windows) and reviewed potential implementation strategies for new HVAC systems as defined in Phase II. Additionally, the carbon emissions, energy use intensity, and cost intensity of each of the sites were benchmarked using annual utility data provided by the Town.

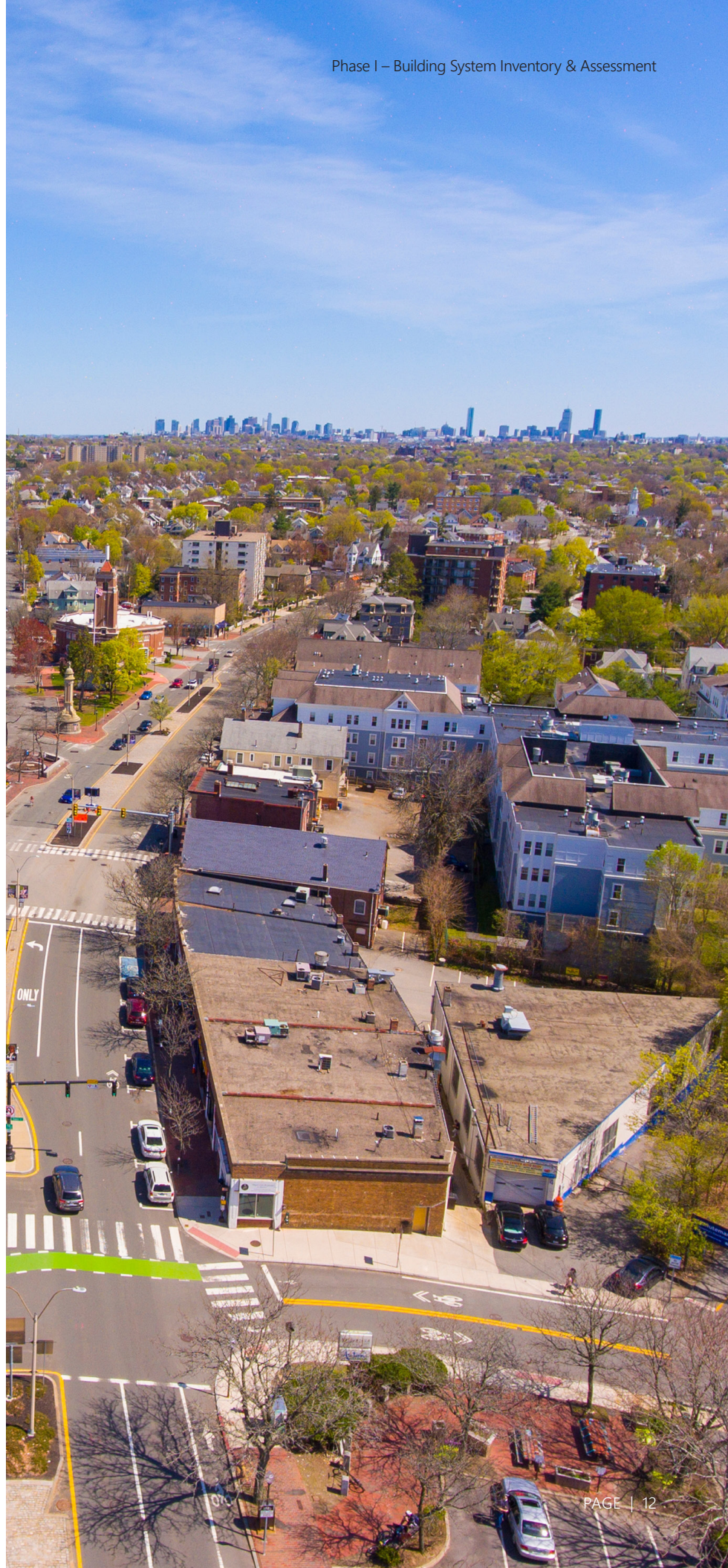
The scope of Phase I did not include the following items:

- a. Detailed and comprehensive inventory of HVAC equipment including makes, model numbers, capacities, distribution and zoning, filtration, control sequences, warranties, life expectancies, maintenance histories, etc.
- b. Detailed and comprehensive inventory of electrical equipment including number and locations of panelboards, transformers, circuit breakers (used and unused), warranties, life expectancies, maintenance histories, etc. Additionally, electrical metering was not performed.
- c. Computerized energy modeling, building management trend reviews or test and balance surveys.

About the Town of Arlington

The Town of Arlington is a suburban community located in Middlesex County, approximately six miles northwest of Boston. Arlington covers 3,518 acres, or 5.5 square miles. Arlington's population is 46,844 (2020 US Census). A total of 5,755 students are served by the district across 11 public school buildings: the six schools that are the subject of this Master Plan as well as Arlington High School, the Gibbs Middle School, Menotomy Preschool, and the Thompson and Stratton elementary schools.

The Town has a history of setting and achieving sustainability goals starting with its first climate action plan, the Arlington Sustainability Action Plan (ASAP), adopted in 2005. The ASAP called for a 10% reduction in greenhouse gas (GHG) pollution by 2010, and 20% by 2020, and the Town achieved both. Arlington is a state-designated Green Community. Beginning in 2018, it became a member of the Metropolitan Mayors Coalition, which commits the Town to achieving net zero GHGs by 2050. The Town is currently in the process of enacting the necessary steps to meet the goals of the 2021 Net Zero Action Plan.



About the Schools

The general physical conditions of the five elementary schools were good, while conditions at Ottoson Middle School were fair. Across the six schools, windows were generally observed to be double-paned and operable. There were a few instances of blown seals and many instances where the windows were observed open. Most site visits occurred in early 2022 on days where the temperatures ranged from 15-35 °F. The open windows suggested there are some thermal comfort issues but could also be a remnant of COVID-19 precautions.

In all schools, air gaps were observed around exterior doors, leading to unnecessary air infiltration. Examples appear in *Figures 1 and 2* on the right.

All roofs were observed visually in good condition for their ages, which ranges from 17-24 years old.

The mechanical systems are well maintained but aged and past useful life. All schools currently have gas-fired boilers and no school has complete central air conditioning. There are a few individually air-conditioned offices and classrooms across the six schools.

The electrical infrastructure is also in good condition. With well-designed HVAC systems, the service size should be able to support the proposed electrification in all but two schools: Bishop and Hardy Elementary.

All schools have partially upgraded lighting. All external lights and a portion of internal lights have been converted to LEDs.

Equipment in the kitchens is not completely utilized as the food is now centrally prepared at Thompson Elementary School. Accordingly, the kitchens at each of the six schools studied are used primarily for warming rather than preparing food, which enhances kitchen efficiency and overall school efficiency.

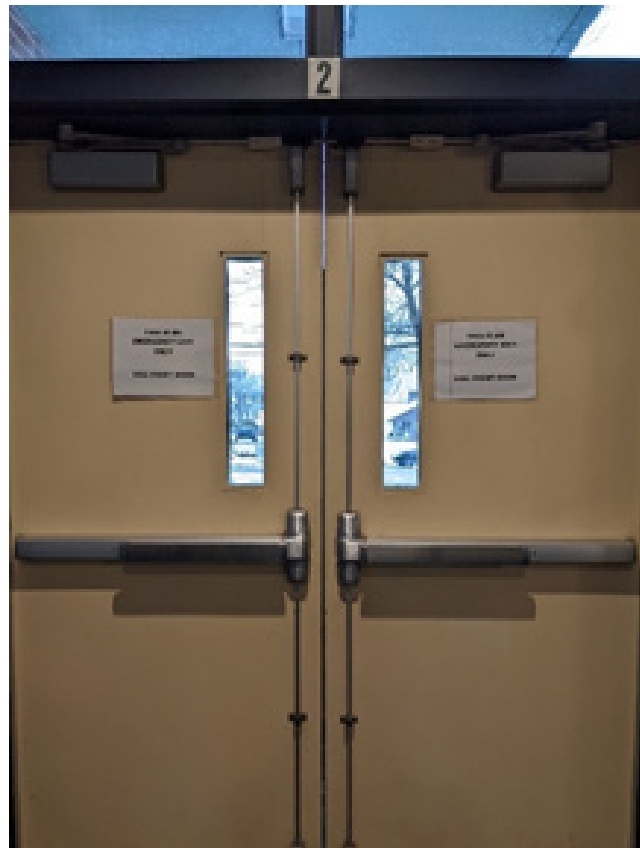


Figure 1 and 2 *Example Infiltration at Peirce Elementary School*



Baseline Energy Profile & Emissions

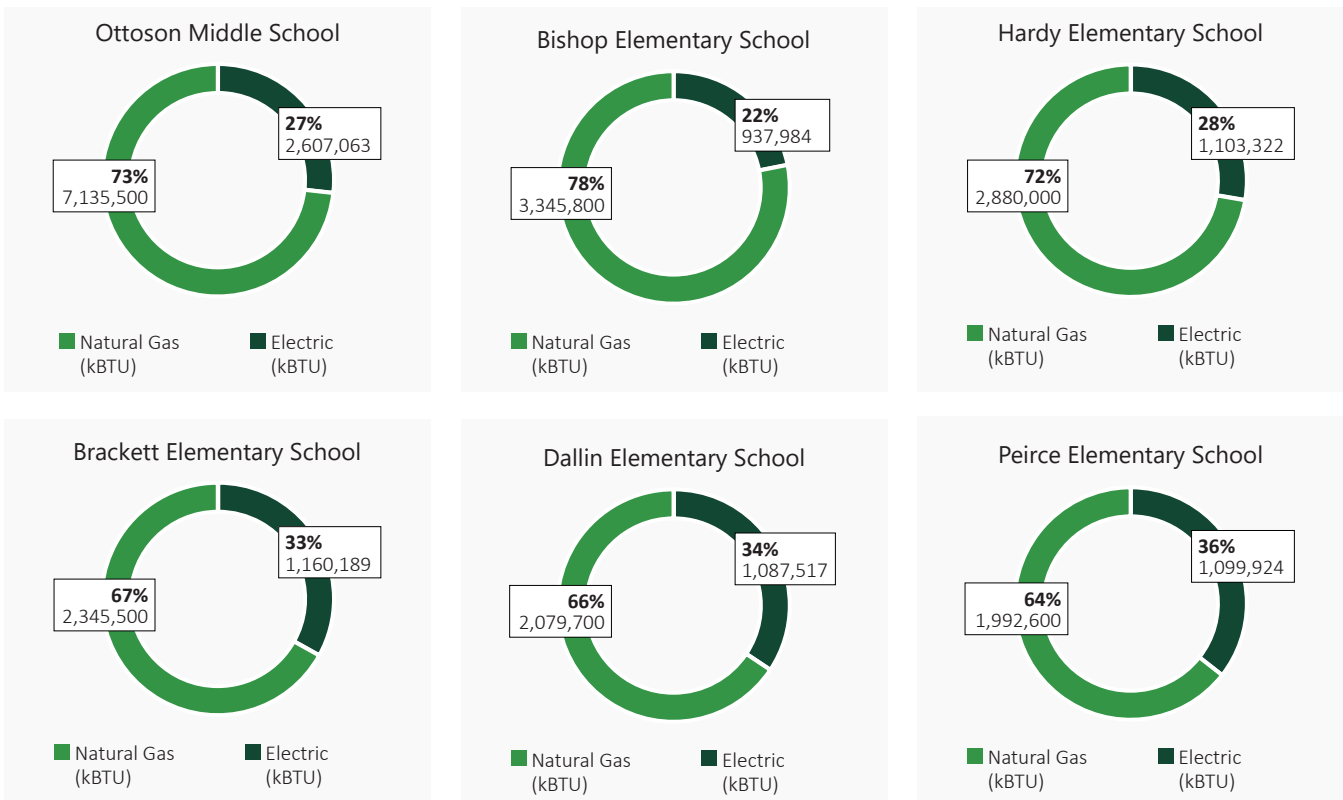
The following is a summary of the pre-electrification energy of each school. This data acts as a baseline to which future improvements can be compared. This section will describe the baseline energy use, energy use intensity, energy cost, and emissions for the six school buildings.

Energy Use

In 2019, for the six schools, the Town paid a combined ~\$811,000 for utilities, with electricity accounting for 72% and gas accounting for the remaining 28% of the total cost. Aggregate annual utility costs come to \$1.84 per square foot.

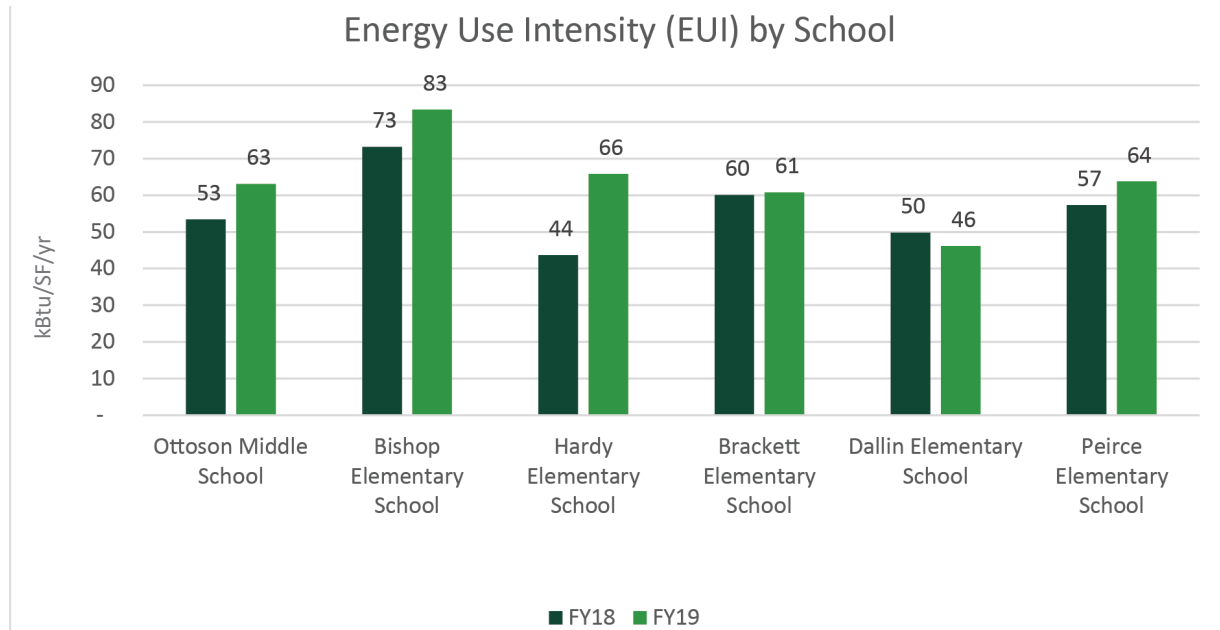
The following charts show the proportion of electricity versus natural gas consumption in 2019. For ease of comparison, both sources of energy have been converted from their native units, kilowatt hours (kWh) and therms, to kilo British thermal unit (kBtu).

School Energy Consumption of Gas vs. Electricity (2019)

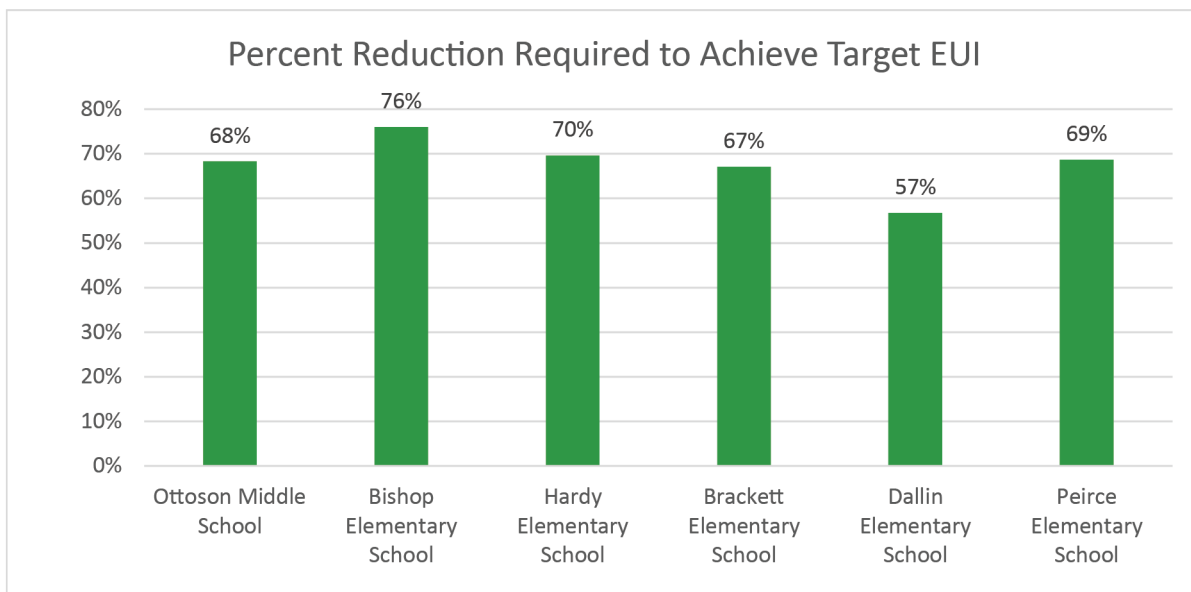


Energy Use Intensity

Building efficiency is measured in thousands of British Thermal Units per square foot per year (kBtu/SF-yr). This metric is referred to as Energy Use Intensity (EUI). This allows the energy consumption for buildings of various sizes to be fairly compared with a normalized metric. The lower the EUI, the better. Arlington's six schools operated at a site EUI ranging from 44-83 kBtu/SF/yr in fiscal years 2018 and 2019, as depicted in the graph below.



A net zero energy school would also be net zero emissions. For comparison to the current school EUIs, the target EUI for a net zero energy school is 20-25. For the six schools in this study to reach that target EUI range, overall energy would need to be reduced. As shown in the chart below, to achieve the net zero target EUI of 20-25, the total energy consumption of each school would need to be reduced 57-76%.



Energy reduction required when comparing the current building EUI with the target EUI required for net zero energy

Utility Rates and Costs

Arlington currently utilizes two primary energy sources for its school buildings: electricity and natural gas.

Arlington's electricity distributor is Eversource. Arlington has a fixed-price (no separate capacity charge) competitive electricity contract with Constellation that expires in December 2024. Arlington negotiates new competitive supply contracts approximately every three years.

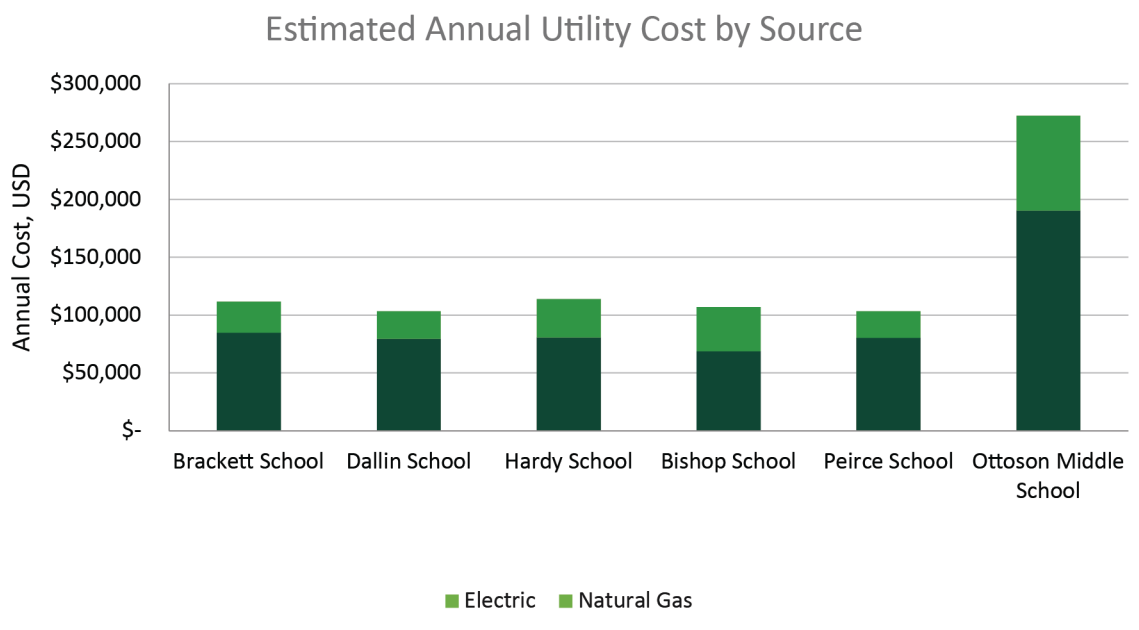
Arlington's natural gas distributor is National Grid. Arlington has a competitive gas supply contract with Direct Energy that expires in October 2024. Arlington negotiates new competitive supply contracts approximately every three years. Recent rates for both utilities, as provided by Town staff, are below.

Utility	Time Period	Supply Rate
Electricity	Dec 2019 – Dec 2022	\$0.1023 / kWh
	Dec 2022 – Dec 2023	\$0.0862 / kWh
	Dec 2023 – Dec 2024	\$0.1285 / kWh
Natural Gas	Jan 2020 – Dec 2022	\$0.573 / therm
	Jan 2023 – Oct 2024	\$0.492 / therm

When accounting for supply and delivery, the blended rates for FY22 are shown below. These are the average across the six schools included in this analysis.

Blended Rate	
Electricity	Natural Gas
\$0.2491 / kWh	\$1.15 / therm

Most of the utility costs for each school are from the electricity. The consumption distribution is the converse; a majority of the energy is from natural gas while it accounts for a minority of the costs. This is a well-known market condition. The approach of this study is efficiency first, then electrification. This will enable the Town to achieve its sustainable electrification goals without prohibitive costs. The graph below shows the estimated annual utility cost for each school by energy source, using the blended rate and FY2019 energy use.

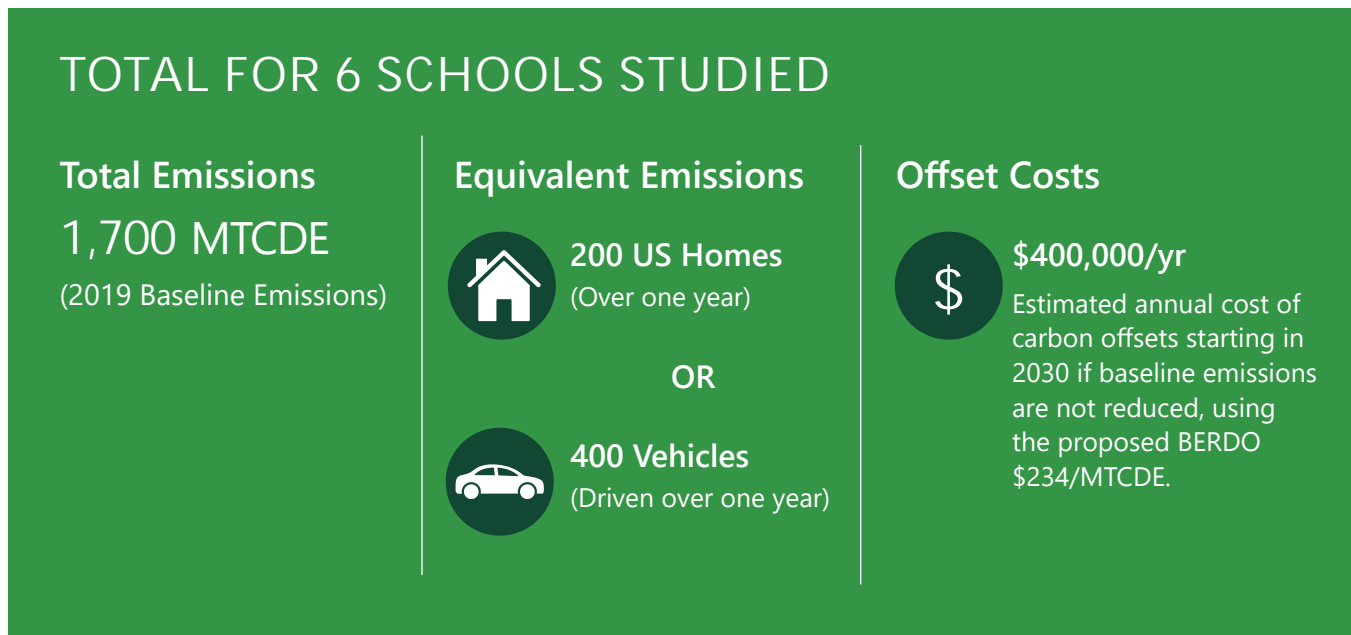


Emissions Analysis

Emissions are quantified based on fuel portfolio and annual consumption. Though the cost of electricity is higher, the emissions associated with electricity are lower. As more renewable energy comes online, grid emissions will continue to trend lower. Natural gas is the cheaper fuel, but it comes at the cost of higher levels of on-site pollution. The analysis below quantifies emissions based on EPA provided emission factors for electricity and natural gas consumption. The national emissions factor for electricity is 1 kilowatt hour = 0.000433 Metric tons of carbon dioxide equivalent (MTCDE). However, the Independent System Operator New England (ISO-NE) grid is cleaner than the national average, so this analysis utilized the ISO-NE regional value (below). Natural gas combustion occurs onsite and is thus not regionally dependent. The natural gas emissions factor is the national value. This value does not account for fugitive methane emissions.

ELECTRIC	NATURAL GAS
$1 \text{ kWh} = 0.00026 \text{ MTCDE}$ <small>kilowatt hour regional</small>	$1 \text{ therm} = 0.00553 \text{ MTCDE}$ <small>national</small>

For perspective on potential carbon cost, the analysis used the proposed “cost” of carbon, \$234/MTCDE, as laid out in the Boston Emissions Reduction Disclosure Ordinance (BERDO 2.0). The BERDO program is from the same geographic region and is one of the most realized emissions strategies in the country. Using the 2019 utility data and the BERDO carbon cost, the estimated cost of not electrifying or seeking clean power would be about \$400,000 per year. Townwide emissions from the six schools are summarized in the table below.



The following page breaks out the emissions for each school in the study. The annual carbon footprint is shown in MTCDE and was calculated using utility data from 2019. Using 2019 data reflects typical energy consumption patterns, while more recent years did not reflect typical operating hours or control settings due to adaptations for the COVID-19 pandemic.

For each school, as for the total noted in the figure above the footprint was converted to more recognizable units, such as the emissions from an average US home or an internal combustion engine vehicle, driven for one year. This was done with the EPA’s greenhouse gas equivalency calculator.

Ottoson Middle School

600 MTCDE

(2019 Baseline Emissions)

Equivalent Emissions



75 US Homes
(Over one year)



128 Vehicles
(Driven over one year)

Bishop Elementary School

260 MTCDE

(2019 Baseline Emissions)

Equivalent Emissions



32 US Homes
(Over one year)



55 Vehicles
(Driven over one year)

Hardy Elementary School

240 MTCDE

(2019 Baseline Emissions)

Equivalent Emissions



31 US Homes
(Over one year)



52 Vehicles
(Driven over one year)

Brackett Elementary School

220 MTCDE

(2019 Baseline Emissions)

Equivalent Emissions



27 US Homes
(Over one year)



47 Vehicles
(Driven over one year)

Dallin Elementary School

200 MTCDE

(2019 Baseline Emissions)

Equivalent Emissions



25 US Homes
(Over one year)



43 Vehicles
(Driven over one year)

Peirce Elementary School

190 MTCDE

(2019 Baseline Emissions)

Equivalent Emissions



24 US Homes
(Over one year)



42 Vehicles
(Driven over one year)



Ottoson Middle School

63 Acton Street, Arlington, MA 02476

BUILDING HIGHLIGHTS

SIZE

- 154,380 SF
- 42 Classrooms
- 899 Students

CONSTRUCTION

- Constructed in 1920, major renovations in 1998

BUILDING ENVELOPE

- Windows are double pane
- Windows were open in many classrooms
- Roof replaced in 1998
- Infiltration through gaps in exterior doors

MECHANICAL EQUIPMENT

- Gas-fired domestic water (DW) heating and hot water (HW) heating boilers (x3)
- General Classrooms & Instructional Spaces – Heating Only Unit Ventilators (UV)
- Band, Cafeteria/Dining, Admin/Offices - Large DX A/C Rooftop Units (RTU) w/ Natural Gas Heat (Multizone & Single Zone)
- Media Center & Media Center Support Areas – Self-Contained DX Unit Ventilators & DX A/C RTUs
- Gyms, Shop, Locker Rooms – Heating and Ventilation Air Handling Units (AHU)

ELECTRICAL EQUIPMENT

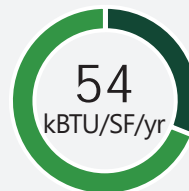
- The current service is 4000A 3-phase 208/120V
- 9.3 W/SF, which is of adequate size
- Has 270 kW rooftop solar; there is room for additional installations

KITCHEN EQUIPMENT

- Kitchen currently used primarily for warming

ENERGY BENCHMARKING [2019 DATA]

Annual EUI



Electrical Usage

2,607,063 kBTU (31% of EUI)

Natural Gas Usage

5,741,500 kBTU (69% of EUI)

Greenhouse Gas Emissions

476.1 metric tons CO₂e

49
Energy ★

Energystar Score

EQUIVALENT MEDIAN K-12 SCHOOL

Annual EUI

53.6
kBTU/SF/yr

EQUIVALENT ENERGYSTAR K-12 SCHOOL

Min. Annual EUI

40.5
kBTU/SF/yr



Bishop Elementary School

25 Columbia Road, Arlington, MA 02474

BUILDING HIGHLIGHTS

SIZE

- 51,367 SF
- 15 Classrooms
- 440 Students

CONSTRUCTION

- Constructed in 1950, major renovations in 2002

BUILDING ENVELOPE

- Significant air gaps at most exterior doors
- Windows are double pane
- Windows were open in many classrooms, many shades were drawn

MECHANICAL EQUIPMENT

- Natural Gas-fired DW Heating and HW heating boilers (x2)
- General Classrooms & Instructional Spaces- Heating and Ventilating RTUs w/duct HW coils & w/ FTR
- General Classrooms & Instructional Spaces (Addition) – VRF with ERVs
- Admin, Offices, Media Center, Computer Lab- RTUs w/ split DX A/C coils & w/ duct HW coils
- Gym – Heating and Ventilating AHU

ELECTRICAL EQUIPMENT

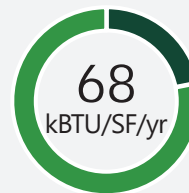
- The current service is 1200A 3-phase 208/120V
- 8.4 W/SF, this ratio is low. A new service would likely be required.
- No onsite solar PV

KITCHEN EQUIPMENT

- Kitchen currently used primarily for warming

ENERGY BENCHMARKING [2019 DATA]

Annual EUI



Electrical Usage
937,984 kBTU (27% of EUI)

Natural Gas Usage
2,566,000 kBTU (73% of EUI)

Greenhouse Gas Emissions
197.9 metric tons CO₂e

46
Energy 

Energystar Score

EQUIVALENT
MEDIAN K-12
SCHOOL

Annual EUI

65.6
kBTU/SF/yr

EQUIVALENT
ENERGYSTAR
K-12 SCHOOL

Min. Annual EUI

49.6
kBTU/SF/yr



Hardy Elementary School

52 Lake Street, Arlington, MA 02474

BUILDING HIGHLIGHTS

SIZE

- 60,507 SF
- 14 Classrooms
- 444 Students

CONSTRUCTION

- Constructed in 1926, major renovations in 2001
- 6-classroom addition in 2018

BUILDING ENVELOPE

- Significant air gaps at most exterior doors
- Windows are double pane
- Roof partially painted white for reduced heat gain
- Roof replaced in 2001

MECHANICAL EQUIPMENT

- Natural gas-fired DW heating and HW boilers (x2)
- General Classrooms & Instructional Spaces – Heating and Ventilating RTUs w/duct HW coils & w/ FTR
- General Classrooms & Instructional Spaces (Addition) – VRF with ERVs
- Admin, Offices, Media Center, Computer Lab- RTUs w/ split DX A/C coils & w/ duct HW coils
- Gym – Heating and Ventilating AHU

ELECTRICAL EQUIPMENT

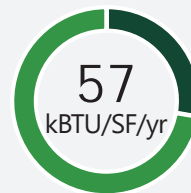
- The current service is 1200A 3-phase 208/120V
- 7.1 W/SF, this ratio is low. A new service would likely be required
- There have been lighting retrofits including motion/occupancy sensors
- No onsite solar PV

KITCHEN EQUIPMENT

- Kitchen currently used primarily for warming

ENERGY BENCHMARKING [2019 DATA]

Annual EUI



Electrical Usage

1,103,322 kBTU (32% of EUI)

Natural Gas Usage

2,370,200 kBTU (68% of EUI)

Greenhouse Gas Emissions

198.3 metric tons CO₂e

54
Energy ★

Energystar Score

EQUIVALENT MEDIAN K-12 SCHOOL

Annual EUI

60.1
kBTU/SF/yr

EQUIVALENT ENERGYSTAR K-12 SCHOOL

Min. Annual EUI

45.4
kBTU/SF/yr



Brackett Elementary School

66 Eastern Avenue, Arlington, MA 02476

BUILDING HIGHLIGHTS

SIZE

- 57,670 SF
- 20 Classrooms
- 535 Students

CONSTRUCTION

- Constructed in 2000, no major renovations

BUILDING ENVELOPE

- Windows are double pane, but a number of them had blown seals
- Many windows were open
- Roof replaced in 2000
- Infiltration through gaps in exterior doors

MECHANICAL EQUIPMENT

- Natural gas-fired domestic water heating and HW heating boilers (x2)
- General Classrooms & Instructional Spaces – Heating and Ventilating RTUs w/HW coils & w/ VAVs & w/ FTR
- Admin, Offices, Media Center, Computer Lab – DX A/C RTU w/ HW coil & w/ VAVs & w/ FTR
- Gym – Heating and Ventilating RTU w/HW coil

ELECTRICAL EQUIPMENT

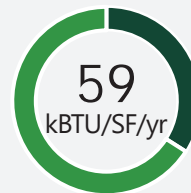
- The current service is 1200A 3-phase 480/277V
- 17.3 W/SF, which is of adequate size
- Has been completely retrofit with LED lighting
- No onsite solar PV

KITCHEN EQUIPMENT

- Kitchen currently used primarily for warming

ENERGY BENCHMARKING [2019 DATA]

Annual EUI



Electrical Usage

1,160,189 kBTU (34% of EUI)

Natural Gas Usage

2,345,500 kBTU (66% of EUI)

Greenhouse Gas Emissions

195.1 metric tons CO₂e



Energystar Score

EQUIVALENT MEDIAN K-12 SCHOOL

Annual EUI

59
kBTU/SF/yr

EQUIVALENT ENERGYSTAR K-12 SCHOOL

Min. Annual EUI

44.7
kBTU/SF/yr



Dallin Elementary School

185 Florence Avenue, Arlington, MA 02476

BUILDING HIGHLIGHTS

SIZE

- 68,578 SF
- 15 Classrooms
- 472 Students

CONSTRUCTION

- Constructed in 1956, major renovations in 2005

BUILDING ENVELOPE

- Significant air gaps at most exterior doors
- Windows are double pane
- Windows were open in many classrooms
- Roof replaced in 2005

MECHANICAL EQUIPMENT

- Natural gas-fired domestic water heating and HW heating boilers (x3)
- General Classrooms & Instructional Spaces – Heating Only Unit Ventilators
- Cafeteria/Dining, Admin/Offices, Media Center- DX A/C Rooftop Units w/ Natural Gas Heat
- Gym – Heating and Ventilating AHUs

ELECTRICAL EQUIPMENT

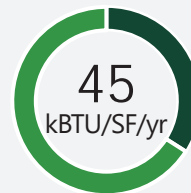
- The current service is 1200A 3-phase 480/277V
- 14.5 W/SF, which is of adequate size
- Has 120 kW rooftop solar

KITCHEN EQUIPMENT

- Kitchen currently used primarily for warming

ENERGY BENCHMARKING [2019 DATA]

Annual EUI



Electrical Usage

1,087,517 kBTU (35% of EUI)

Natural Gas Usage

1,987,100 kBTU (65% of EUI)

Greenhouse Gas Emissions

176.5 metric tons CO₂e

71
Energy ★

Energystar Score

EQUIVALENT MEDIAN K-12 SCHOOL

Annual EUI

56.5
kBTU/SF/yr

EQUIVALENT ENERGYSTAR K-12 SCHOOL

Min. Annual EUI

42.7
kBTU/SF/yr



Peirce Elementary School

85 Park Avenue Extension, Arlington, MA 02474

BUILDING HIGHLIGHTS

SIZE

- 48,500 SF
- 12 Classrooms
- 307 Students

CONSTRUCTION

- Constructed in 2002, no major renovations

BUILDING ENVELOPE

- Significant air gaps at most exterior doors
- Windows are double pane
- Windows were open in many classrooms

MECHANICAL EQUIPMENT

- Natural gas-fired domestic water heating and hot water heating boilers (x3)
- Air-Cooled Chiller
- General Classrooms & Instructional Spaces – 2-Pipe Heating/Cooling Unit Ventilators
- Cafeteria/Dining, Admin/Offices, Media Center – AHUs with Cooling
- Gym – Heating and Ventilating AHUs

ELECTRICAL EQUIPMENT

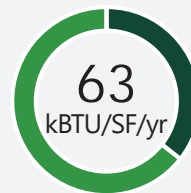
- The current service is 1200A 3-phase 480/277V
- 20.6 W/SF, which is of adequate size
- Has been completely retrofit with LED lighting
- Has 80 kW rooftop solar

KITCHEN EQUIPMENT

- Kitchen currently used primarily for warming

ENERGY BENCHMARKING [2019 DATA]

Annual EUI



Electrical Usage

1,099,924 kBTU (36% of EUI)

Natural Gas Usage

1,099,924 kBTU (64% of EUI)

Greenhouse Gas Emissions

176.3 metric tons CO₂e

45
Energy ★

Energystar Score

EQUIVALENT MEDIAN K-12 SCHOOL

Annual EUI

60.1
kBTU/SF/yr

EQUIVALENT ENERGYSTAR K-12 SCHOOL

Min. Annual EUI

45.5
kBTU/SF/yr

PHASE II

ALTERNATIVE ELECTRIFICATION & AIR QUALITY IMPROVEMENT OPTIONS

PHASE II OBJECTIVES

This section describes options, feasibility, and priorities for drastic energy reductions and electrification at each site while adding air conditioning and mechanical ventilation throughout. As part of this effort, a Scoping Study Narrative (Appendix A), annotated PDF floor plans (Appendix B), cutsheets (Appendix C), and cost estimates (Appendix D) were prepared for each site. This portion of the Master Plan describes the technical approach necessary at a concept level for each school. Each of the schools will require significant minimum investment for HVAC system replacement in the next 20 years.

The basis of the Master Plan utilizes the following building information:

- a. Bishop Elementary School – 51,370 SF
- b. Brackett Elementary School – 57,670 SF
- c. Dallin Elementary School – 68,580 SF
- d. Hardy Elementary School – 60,510 SF
- e. Peirce Elementary School – 48,500 SF
- f. Ottoson Middle School – 154,400 SF

Additionally, increases in occupancy are not anticipated nor are building expansions included in this Master Plan. The CMTA team recommends that Ottoson Middle School undergo a more comprehensive update/renovation through the MSBA Capital Planning Process based on the overall age and condition of the building.

Two HVAC systems are considered in detail for each site: water-cooled, closed-loop ground source/geo-exchange HVAC and air-cooled variable refrigerant flow (VRF). An “in-kind” option that leaves existing natural gas heat and adds complete air conditioning is included to show the minimum investments that will be needed by the Town regardless of final HVAC system selection approach, recognizing that full renewal of existing systems will be needed in the near future. Both electrification approaches include total system renewal of equipment, piping ductwork, controls, etc. not just individual pieces of equipment.

The ground source HVAC system and VRF system options include full air conditioning and full heating. There are hybrid options available between the systems, and standing column geothermal wells could be considered, but these additional options were not included in this analysis. Both the ground source and VRF systems include mechanical dedicated fresh air ventilation complying with ASHRAE 62.1 and post-pandemic filtration strategies. Sizing of the HVAC system assumes air infiltration reduction measures but not major envelope upgrades. Also, alternatives to electrify domestic water heating are described and the food service approach of “warming kitchens” in the schools is assumed to remain – this is an effective strategy from an energy efficiency perspective.

The analyses of the systems incorporate first cost estimates, anticipated annual operating costs, and carbon emissions potential, in order to establish a life cycle cost investment. There are also potential utility incentives and federal tax dollars that may be available depending on the option chosen.

Path Forward to Electrification & Net Zero Emissions

The Town considered including a goal of net zero energy as well as net zero emissions, but ultimately that reality is limited by available real estate for PV systems and the feasibility of drastic energy reductions in existing buildings. A net zero energy building, as defined by the Department of Energy in its publication “A Common Definition for Zero Energy Buildings,” is “an energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy.” In the industry, the goal EUI for a zero-energy building is the 20-25 EUI range, or better. This range represents a good ratio of program square footage, which drives energy consumption, to roof area, which typically limits the amount of PV that can be installed on site. To achieve an EUI in this range in an existing building will require drastic reductions in energy consumption. For the Arlington schools, based on the most recent energy data and the expectation of adding air conditioning to the buildings, this focus on energy efficiency first is especially necessary.

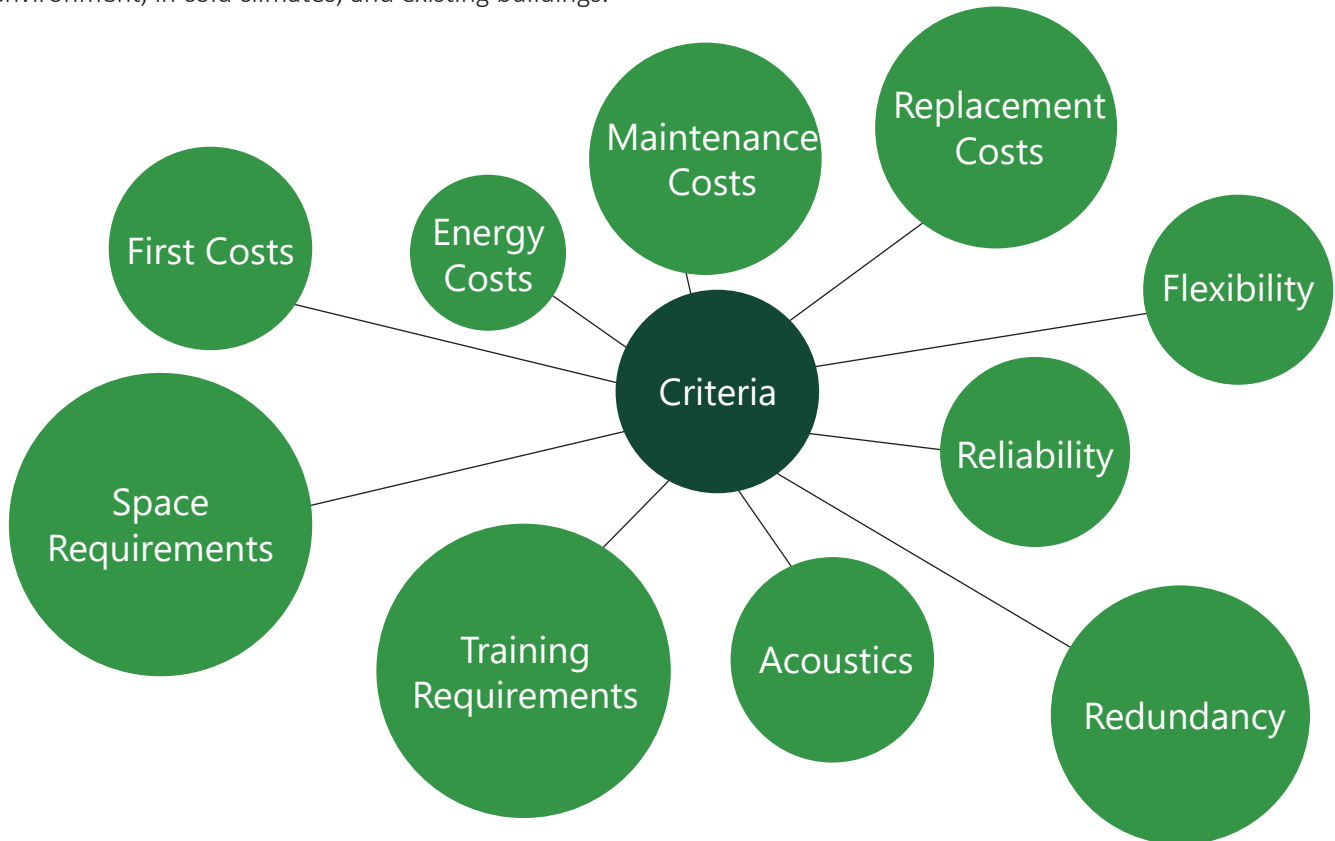
The following strategies, many of which the Town has taken, support energy reduction. Steps to enable the electrification of existing buildings:

1. Install highly efficient electrified heat pump type HVAC systems including controls and energy recovery strategies.
2. Install highly efficient LED lighting and controls.
3. Improve building envelope’s thermal performance and reduce air leakage rates.
4. Install highly efficient electrified domestic hot water heating systems and implement water conservation strategies.
5. Manage plug loads including office equipment, technology systems and kitchen equipment and appliances.
6. Install additional on-site energy generation and/or purchase clean energy.
7. Verify the building performance through optimized commissioning efforts and consistently optimize building operations through long term measurement and verification.

Energy efficiency and reduction are central to net zero emissions as well as net zero energy, so each of these strategies has been considered in this study. Specific recommendations are broken out by building systems later in this section.

HVAC Electrification Alternatives

The largest operational cost impacts related to electrification will come down to the HVAC system selection. Several factors must be considered when selecting an HVAC system, as is depicted in the following diagram. There are several electric heat pump HVAC system options, but not all are a good fit when considering a K-12 environment, in cold climates, and existing buildings.



After conversations with the Town at the commencement of this study, it was decided that there would be two heat pump electrification options considered in this Master Plan. Both options will completely convert the natural gas-fired HVAC systems to electrified systems.

OPTION 1

Air-Cooled Variable Refrigerant Flow (VRF) HVAC System

This option consists of indoor cassette units, fan coils, etc. with outdoor VRF compressor heat pump units and interconnecting refrigerant piping for zone heating/cooling control. This system has a lower first costs, but higher life cycle costs. The predicted EUI for any school with this system will be ≈ 45 EUI.

OPTION 2

Water-cooled, Closed-loop Ground Source Heat Pumps

This option consists of unitary water-source heat pumps for zone heating/cooling control and an underground closed loop geothermal wellfield. This system has a higher first costs, but lower life cycle costs. The predicted EUI for any school with this system will be ≈ 22 EUI.

In response to COVID-19, both options include dedicated ventilation (outside) air systems to deliver preconditioned and highly filtered fresh air to all occupiable spaces.

Criteria Prioritization

There are many criteria by which the HVAC system could be chosen. The table below shows the parameters typically most important to school districts and how the two systems compare to one another.

	VRF	Geothermal
First cost	✓	X
EUI	X	✓
Program Implications/Space Required	✓	X
Speed of Construction	✓	X
Indoor Air Quality/Filtration	X	✓
Operating Cost	X	✓
Individual Zoning	✓	X
Emission Implications	X	✓
Fewer Compressors	✓	X
PV Impact	X	✓
Refrigerant Global Warming Potential (GWP)	X	✓

Parameters are explained below.

First Cost: The initial cost to purchase and install a new system.

The installation and equipment required for a VRF system is typically less expensive than a geothermal system.

EUI: The average Energy Use Intensity of an elementary school with this system type.

Geothermal heatpumps are a more efficient system and thus typically have a lower EUI than the same building with a VRF system.

Program Implication/Space Required: This refers to the total amount of equipment, its size, and the ideal location. In an existing building, there are direct tradeoffs between mechanical/electrical space and program space.

In a VRF system, most equipment is confined to central mechanical rooms, above ceiling, and rooftops, meaning there is little reduction in program space. In geothermal heat pump systems, it is favorable for maintainance to locate the heat pumps in closets rather than above ceiling. Depending on the layout of the school, this can mean taking some area from program space.

Speed of Construction: The total time to install the system and return the space to operable conditions.

A geothermal system requires the drilling of a wellfield. This additional step means that VRF installations take less total time.

Indoor Air Quality: The quality of air in the building; related to the health and comfort of occupants.

Both systems can be equipped with air filters of the desired rating (post-COVID, this is typically MERV-13).

However, because the heat pumps are installed in closets with separate doors to the hallway wherever possible, rather than above ceiling, they are more easily accessible for maintenance. In many cases, filter changes and other maintenance can be conducted more frequently without disrupting classrooms.

Operating Cost: The cost of utilities to operate the building.

Geothermal systems are more efficient than VRF, leading to lower energy consumption and decreased utility bills.

Individual Zoning: The degree to which occupants can control the thermal conditions of their space.

In geothermal systems, one to three zones share a heatpump, but individual airflow control per zone is still provided.

Emission Implications: The expected emissions based on the system type.

In this case, both systems would be all electric, so site emissions would be equivalent. However, at a source level, grid electricity is not yet 100% clean, so the better option is the one that uses the least electricity. As noted in the operating cost description, a geothermal system means higher efficiency, lower EUI, and less total energy consumption.

Fewer Compressors: This is based on the sum of all compressors required for either system.

Every heat pump includes a compressor, while a VRF system would only have compressors in the central outdoor equipment.

PV Impact: If striving for net zero energy, then a school would install an amount of PV capable of producing as much energy as the building consumes. The design and performance of the HVAC system is a large driver of the PV sizing.

The higher efficiency of the geothermal system means a smaller PV system would be required.

Refrigerant GWP: The global warming potential and amount of refrigerant required for either system.

Both systems could use the same refrigerant type, so the GWP would not vary. However, the VRF system is refrigerant based and thus requires a larger total amount of refrigerant. VRF also has more risk for leakage during field installation of refrigerants.

Phasing Recommendations

The culmination of the information gathered in Phases I & II is a weighted average computation. This method allowed quantitative assignments to be made across the key categories: Original Construction, Renovation, Equipment Condition, Energy Use Intensity, Carbon Footprint, and Current Operating Cost/SF. In each category, schools were ranked from 1-6 with 1 representing either the oldest, or worst condition and 6 the newest, or best condition. Ultimately, the data was condensed into three categories:

1. Need for Renewal: Based on the age of building and condition of infrastructure
2. Carbon Footprint: Based on total emissions using 2019 utility data
3. First Cost: Based on first cost of the existing heat and DX cooling case (1 is the highest cost, 6 the lowest cost)

Applying weights to the data allows for the conversion of qualitative comparisons to quantitative ones. Through discussions with the Town, it was decided to include Need for Renewal just above Carbon Footprint and First Cost, which resulted in weights of 40%, 30%, and 30%, respectively.

	1. Need for Renewal	2. Carbon Footprint	3. First Cost	Overall Rank
Bishop Elementary School	4	2	5	2
Brackett Elementary School	2	4	4	3
Dallin Elementary School	6	5	2	6
Hardy Elementary School	3	3	3	4
Peirce Elementary School	5	6	6	5
Ottoson Middle School	1	1	1	1*

The resulting order can be seen above. Ottoson is ranked first, but it is our recommendation that it be treated differently. Given the overall age of Ottoson, equipment, and the disparate layout of the various wings, an HVAC retrofit does not make sense as a standalone project. Funds invested to put a new HVAC system into the building would be better spent on a more comprehensive and integrated upgrade. In coordination with the MSBA, funds could be requested for said upgrade. With that note, the following is the recommended order to address the schools:

1. Ottoson Middle School (pending MSBA funding, Ottoson could change priority)
2. Bishop Elementary School
3. Brackett Elementary School
4. Hardy Elementary School
5. Peirce Elementary School
6. Dallin Elementary School

Clean Power

Existing Conditions

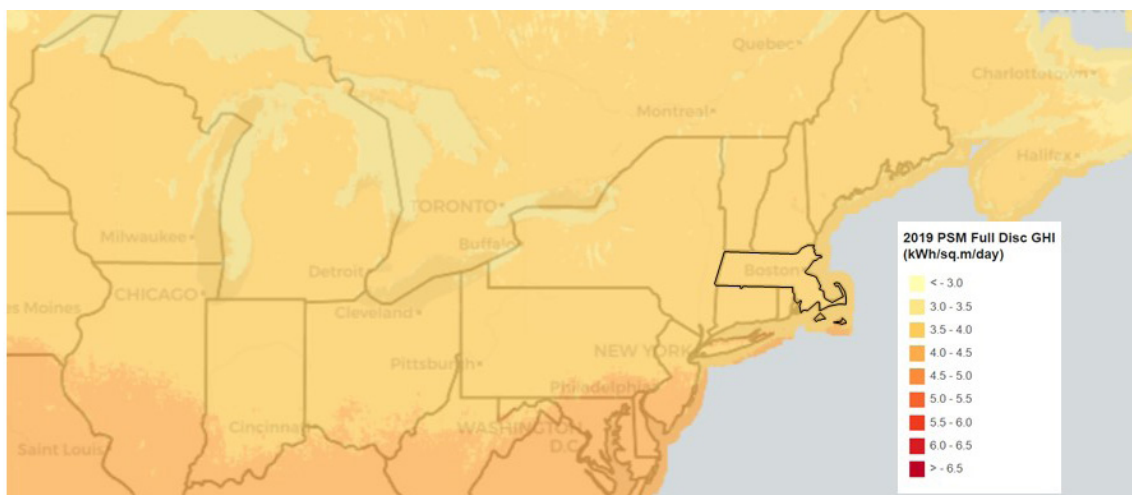
Three of the schools studied have existing PV installations: 120 kW at Dallin Elementary, 80 kW at Peirce Elementary, or the 230 kW at Ottoson Middle School. These are a part of a 2015, 20-year solar power purchase agreement with Ameresco. These installations are all in front of the meter and the Town does not claim the environmental offset.

A renovation of Arlington High School occurred in parallel with this Master Plan. During construction of that project, the rooftop panels had to be disconnected and temporarily relocated. The Town incurred fees for the period during which the panels were out of commission and not generating power. This was brought to the attention of the CMTA as a consideration for potential impacts on current or future rooftop solar at the six schools studied.

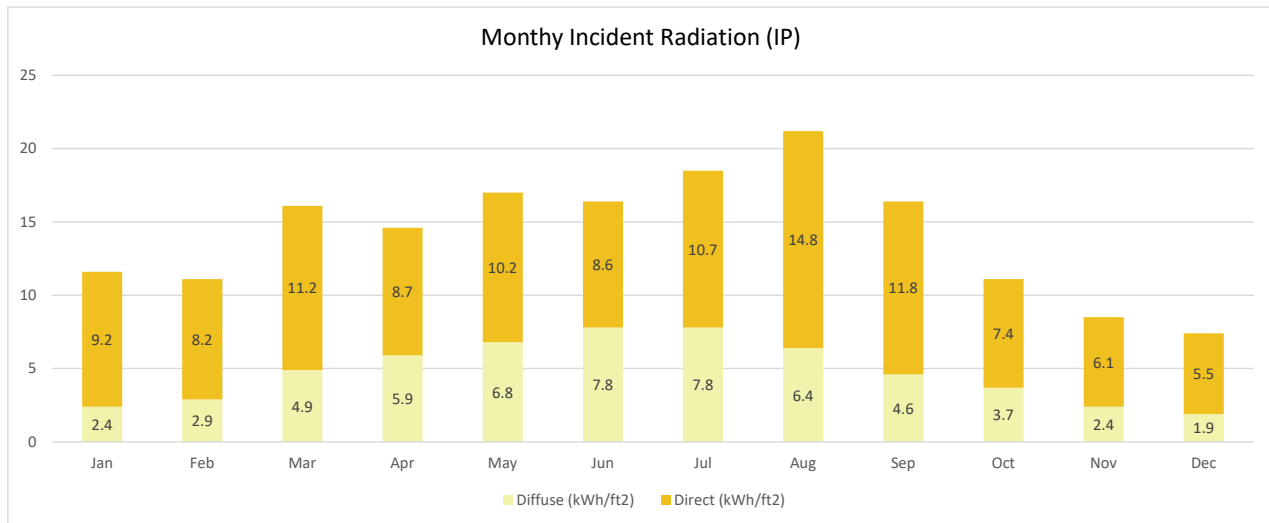
For those three schools with solar, electrification project construction could be conducted without long-term disruption to generation or the need for panel relocation. Temporary disconnects may need to occur when new equipment is being connected and short-term disconnection may be required if a service upgrade is deemed necessary. This would be confirmed in the design phase of each the projects. Regarding relocation, the removal of existing rooftop units is feasible without disruption of the PV installations. Based on dimensions from cutsheets for the new rooftop equipment, such as the dedicated outdoor air system (DOAS) unit, it is feasible to place new equipment within the footprint of the removed equipment. This would negate the need to reconfigure the arrays. This would also require confirmation when equipment is specified.

Solar Potential

Analysis of the sites was performed to determine if solar access and typical weather conditions are suitable for solar photovoltaics. The variables of interest included global horizontal irradiance (GHI), direct normal irradiance, diffuse horizontal irradiance, and ambient temperature. Data from NREL's National Solar Radiation Database (NSRDB) was used to assess typical conditions for the proposed site. These variables are necessary for calculating the irradiance available to PV arrays and can serve as a proxy for preliminary assessments of solar PV production. GHI is the total amount of sunlight available at the Earth's surface, including both the direct and diffuse components of sunlight. The average annual GHI for Massachusetts is 3.8 kWh/sq.m/day. The map below indicates the average daily horizontal irradiance available across Massachusetts and neighboring states.



Through the data obtained from the NSRDB, an annual profile of solar irradiation was created, as shown in the figure below. Due to the site locations, photovoltaic solar systems have the potential to produce a significant amount of electrical energy. While high ambient temperatures can reduce a PV array's power output, the maximum average monthly temperature for Massachusetts is only three degrees Celsius higher than standard testing conditions for PV modules. At the maximum temperature of 96.8 degrees Fahrenheit, module performance would only be expected to depreciate by 1.2%. These factors combine to make the sites suitable location for solar PV systems.



To understand the site solar potential, Helioscope models were created for each site. This is the same tool utilized by Ameresco in their previous solar study. The higher solar potential found in our study can be attributed to the continued advancement in solar panel efficiency. The models used 450W modules. The total solar potential of each school, using 2022 solar panels, is shown in the chart below. The existing solar arrays at Dallin, Peirce, and Ottoson take up a majority of the rooftop square footage, leaving limited space for new installations. Given that those installations are set to stay installed through 2035, the actual install potential was recalculated. The “Actual Install Potential” column reflects the amount of solar that could be installed but should be verified when the system is designed. Lastly, the EUI Offset shows the equivalent offset from the actual install potential.

Site	2022 Rooftop PV Potential	Existing PV Install	Actual Install Potential	EUI Offset
Bishop Elementary School	187 kW	-	187 kW	14
Brackett Elementary School	191 kW	-	191 kW	12
Dallin Elementary School	271 kW	120 kW	69 kW	4
Hardy Elementary School	226 kW	-	226 kW	14
Peirce Elementary School	198 kW	80 kW	70 kW	5
Ottoson Middle School	613 kW	230 kW	341 kW	8

For Option 1 (VRF), to achieve a net zero energy building at the target EUI of 45, then the average solar array for each of the six schools would be 1034 kW in size. For Option 2 (geothermal), to achieve a net zero energy building at the target EUI of 22, the average solar array for each of the six schools would be 521 kW in size. In no case is the amount of feasible rooftop solar enough to fully offset the predicted EUI of either system.

Clean Energy Procurement

In Massachusetts, electric and/or gas customers can compare pricing among competing energy commodity providers. Energy reforms and market competition bring lower, more flexible energy prices with new service offerings designed to attract and keep customers. These reforms are the result of energy market deregulation, where consumers are empowered to compare rates, services, and contract terms, and then choose the options that are best for them.

Purchasing renewable energy could provide a relatively simple way to offset electricity emissions for the Town. Renewable energy can often be purchased directly from the customer's load-serving utility, or from a specialized service provider. This is a widespread and familiar compliance strategy for many organizations with renewable energy goals. This could be an improvement made in the interim period between the present and full electrification. This strategy could continue to be employed post-electrification, to offset the emissions of electricity from the grid until the point at which the grid is completely clean. Eversource and the State of Massachusetts have made commitments to green the grid by 2050.

Clean Energy Recommendations

Initial area evaluations indicated that Town would need to accommodate approximately 3-6 MW of roof-mounted and ground-mounted solar PV to fully offset energy consumed across the 6 schools. In cases where on-site generation is limited by technical or economical limitations, procurement strategies should be adopted to reduce emissions from purchased electricity.

Reaching net zero energy on site is not likely feasible. The potential for a community solar installation, which would be sized to total any required solar that could not be accommodated at the six school sites, was then put forth. The size of such an installation would have been more than a few acres and such real estate is not available in the town.

For the Town to reach its net zero emissions goal, with the constraints above, the best option could be clean energy procurement. This solution would allow the Town an intermediate solution until the grid is 100% clean. The approach would remain: pay attention to energy efficiency first, designing and maintaining electrified schools with the lowest possible EUI. Then, the Town would procure clean energy to offset the GHG emissions associated with the grid electricity used. As the grid becomes cleaner, the amount of clean energy required as an offset would decrease until it is no longer necessary.

Building Operations & Performance

With the financial investment required for these facilities, hands-on commissioning and optimization for these future high-performance buildings is a *must-do*. Optimized commissioning must be performed for all energy consuming and energy producing systems in the building. Building envelope pressure testing (blower door testing) and thermal scanning is recommended to establish baseline infiltration levels and will help to identify specific areas where improvements are needed.

The level of service and expectations of commissioning should be above and beyond standard commodity commissioning procedures typically seen in the industry. The commissioning effort must include true optimization of system sequences, set-points, and schedules to ensure energy performance goals can be realized. It is critical to plan commissioning (Cx) time in the overall construction schedule and include the appropriate contractor representation to make Cx successful, with the goal of obtaining the required reduction results as soon as possible.

A measurement and verification plan can validate the implemented energy conservation measures obtained the desired energy reductions. In this approach, the contractor obtains and reviews the monthly energy data (electricity and natural gas) provided by the Town for 15 – 18 months post construction as compared to the energy model. As conditions, schedules, and set-points tend to change over time, the energy performance of the building will be affected. The energy data should be verified at least every 6 months.

The plan must review the sub-metered data from the solar PV system. This plan must also include a review of the building's operations. This includes reviewing actual operating hours versus those modeled. After a sufficient time for operations to settle in, the Town must provide 12 months of verified energy data suitable for certification requirements as needed. The overall approach would be in accordance with IMVP (International Measurement and Verification Protocol) Guidelines Option C & D.



PHASE III

INVESTMENT PLAN

PHASE III OBJECTIVES

This project phase uses the analysis from the two phases prior to develop priorities which are placed on a timeline. Recalling that the goal of the Town is to renew aging HVAC systems, achieve full electrification, and improve air quality by 2050, this section details a strategic roadmap.

The analysis between the systems factors in order of magnitude first cost estimates, anticipated annual operating costs, and carbon emissions potential to establish a life cycle cost investment. There are also utility incentives and federal tax dollars that may be available depending on the option chosen. For each site, three alternatives are considered.

The three options are:

1. Variable Refrigerant Flow (VRF) System
2. Ground Source Heat Pump System
3. Business as Usual: Hot Water Heat with full DX Air Conditioning (Fossil Fuel Remains)

The first and second options are those that were proposed as viable all-electric HVAC systems that would provide full heating and air conditioning to all buildings in an energy efficient manner. The design details for these systems are detailed in Appendix A.

The third option represents the business-as-usual case. In this case, the existing natural gas heat remains and electrification is not achieved. The costs associated would be system replacements when systems reach end of life. To make this case comparable to the others, which provide complete heating and cooling, full air conditioning via DX cooling is included. This option demonstrates essentially the minimum cost to the Town to continue to run these six schools over the 30 year period analyzed.

Ultimately, this section provides the Town with the data needed to evaluate the options to meet the goals laid out in the Net Zero Action Plan and Electrification & Air Quality Master Plan. A timeline for renewal is proposed based upon Town priorities which, along with initial costs required to install either system, gives the Town a tool for mapping out the future projects and financial investment required to reach its goals.

Life Cycle Cost Analysis Methodology

LCCA inputs included first cost data, utility costs, inflation rate, and estimated maintenance. The first cost data come from the cost estimations of the VRF and Ground Source Heat Pump Systems described in further detail in Appendix D. Utility data costs were calculated using the 2022 blended utility rates provided by the Town, \$0.25/kwh and \$1.15/therm, for electricity and natural gas, respectively. An inflation rate of 6% was applied to natural gas and 5% was applied to electricity. Maintenance was estimated on a square foot basis per system and subject to market escalation, which was estimated at 2% annually.

Replacement costs at year 20 are a percentage of the first cost, escalated out to 20 years. The percentage applied depends on the average lifespan of system components, and the total estimated amount of equipment that would be replaced at that time.

Life Cycle Cost Analysis Trends

Studying the results, a few trends emerge:

- In every case, when looking at first cost of the HVAC system alone, the ground source heat pump option is more expensive than the variable refrigerant flow option. The existing heat and DX cooling option first cost falls between that of VRF and geothermal.
- When looking at life cycle costs, with no incentives, the ground source heat pump system becomes less expensive than the VRF system in all but one case (Peirce) where the systems cost the same amount.
- Taking market and legislative conditions into account, the Inflation Reduction Act and Mass Save expected incentives were applied. Based on the incentives available, the ground source heat pump system becomes significantly less expensive, whereas the VRF system qualifies for fewer incentives, so costs decrease only slightly. Notably, with incentives, the VRF system cost is comparable to the cost of the existing heat and DX cooling option, which remains more expensive for all schools than the geothermal option. The savings in today's dollars from incentives when totaled across the six schools are \$1.3 million for VRF and \$27.5 million for the ground source heat pumps.

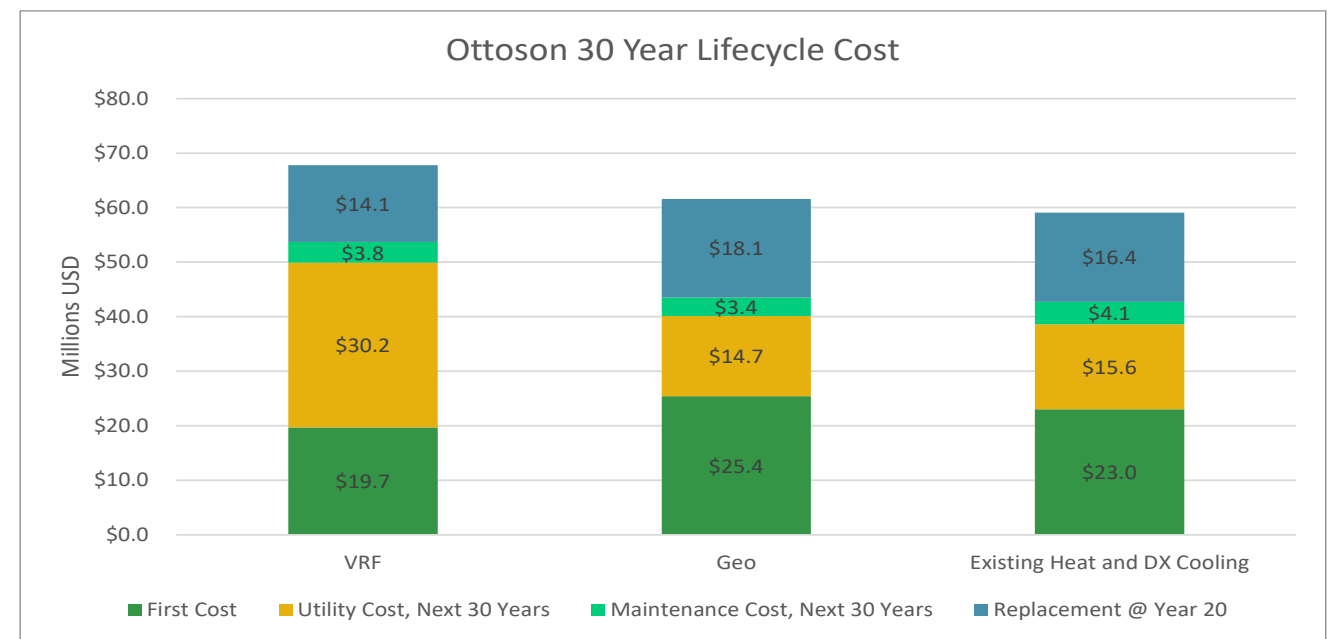
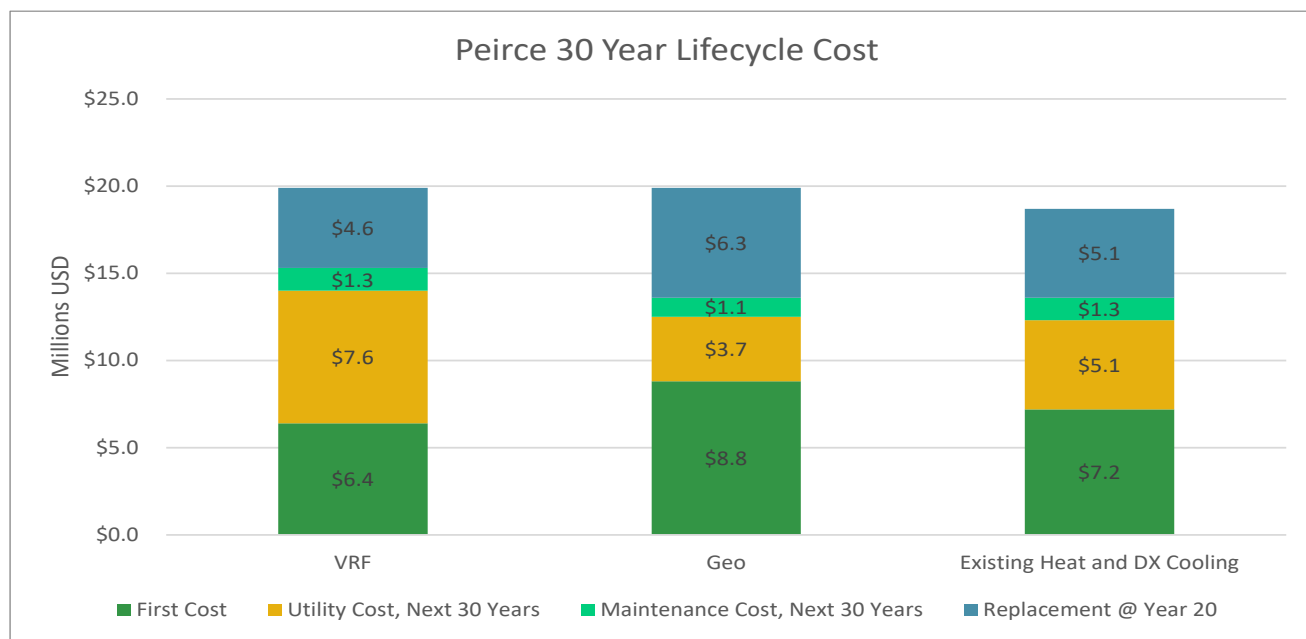
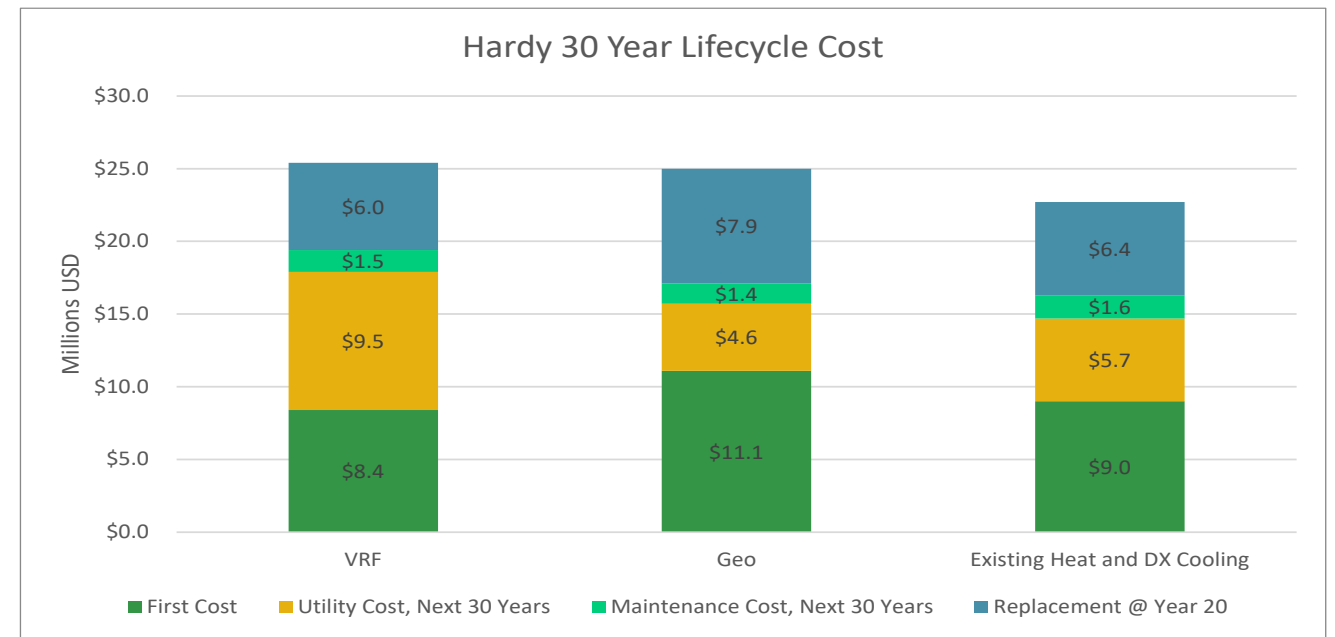
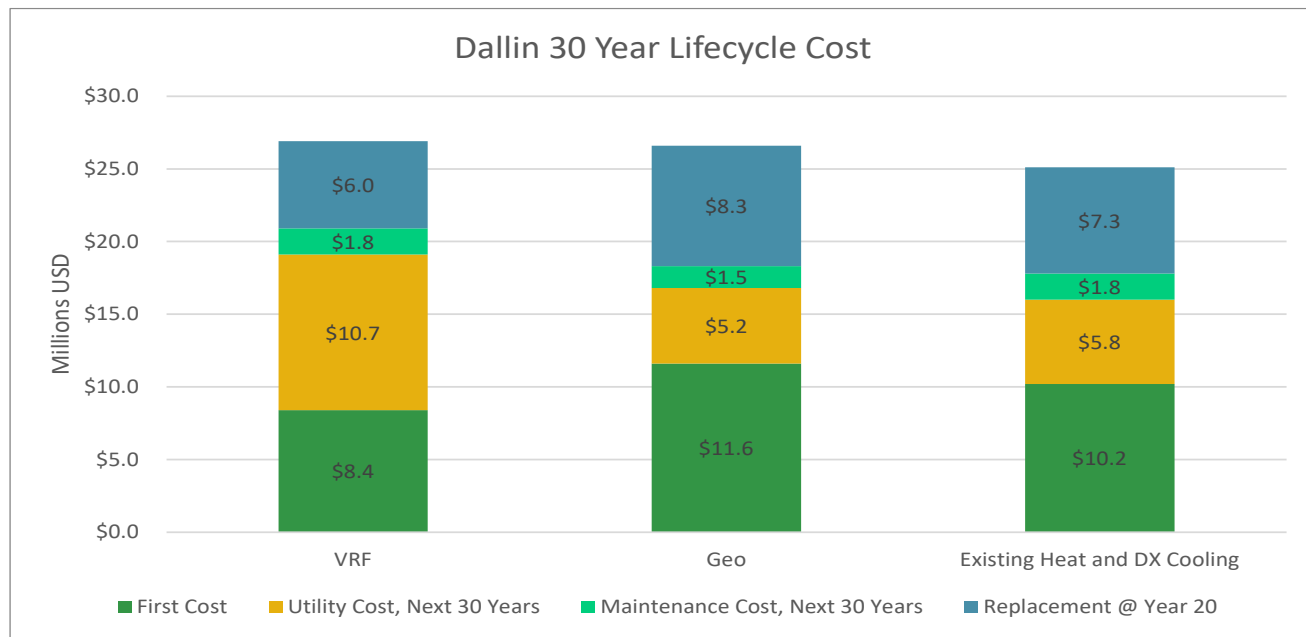
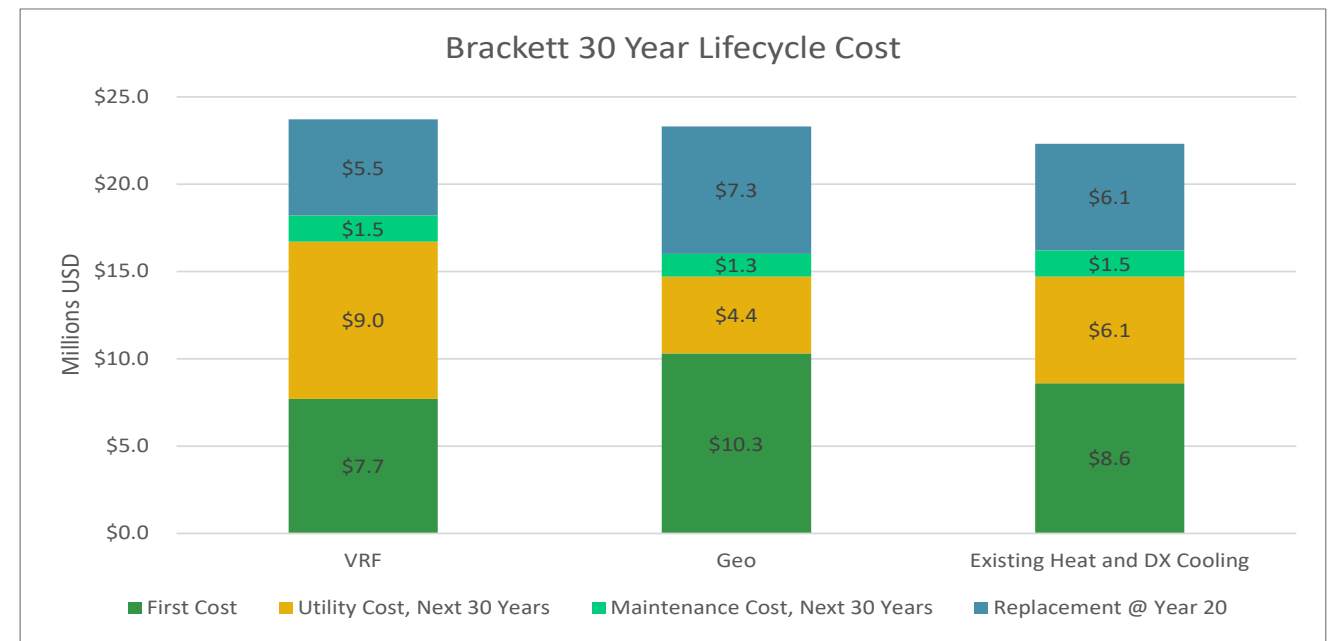
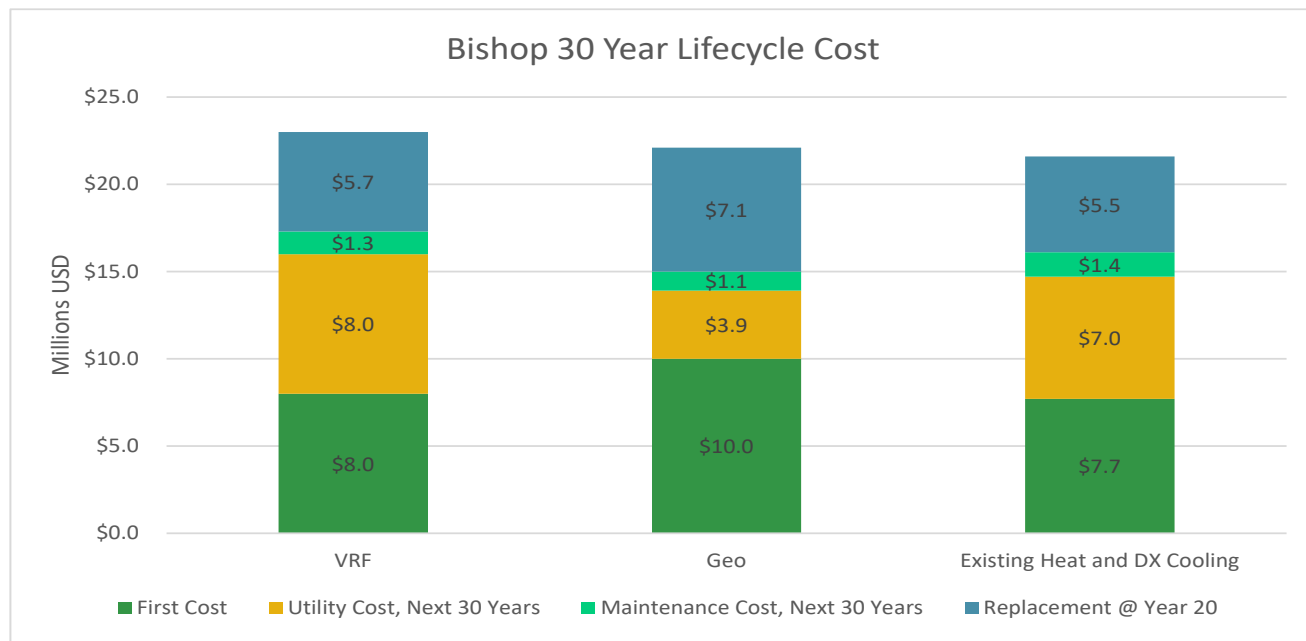
It is critical that the Town consider life cycle costs when evaluating viable electrification options. Selecting a less efficient system or looking strictly at first cost alone could lead to a choice that spends more money than is necessary. Looking at the group of six schools, in today's dollars and with incentives, the difference in life cycle costs between the VRF and ground source heat pumps options is \$34.3 million. This is the equivalent of 635 teachers' annual salaries, using the average Massachusetts teacher's salary of \$54,000.

Life Cycle Cost Analysis Data

The charts and graphs on the following page offer the Town the ability to consider the options through several lenses. In every instance, the "In-Kind" case is shown as a point of comparison. It is essentially a do-nothing, business as usual case where on-site fossil fuels remain. It will not achieve the Town's stated goals of electrification and improved air quality.

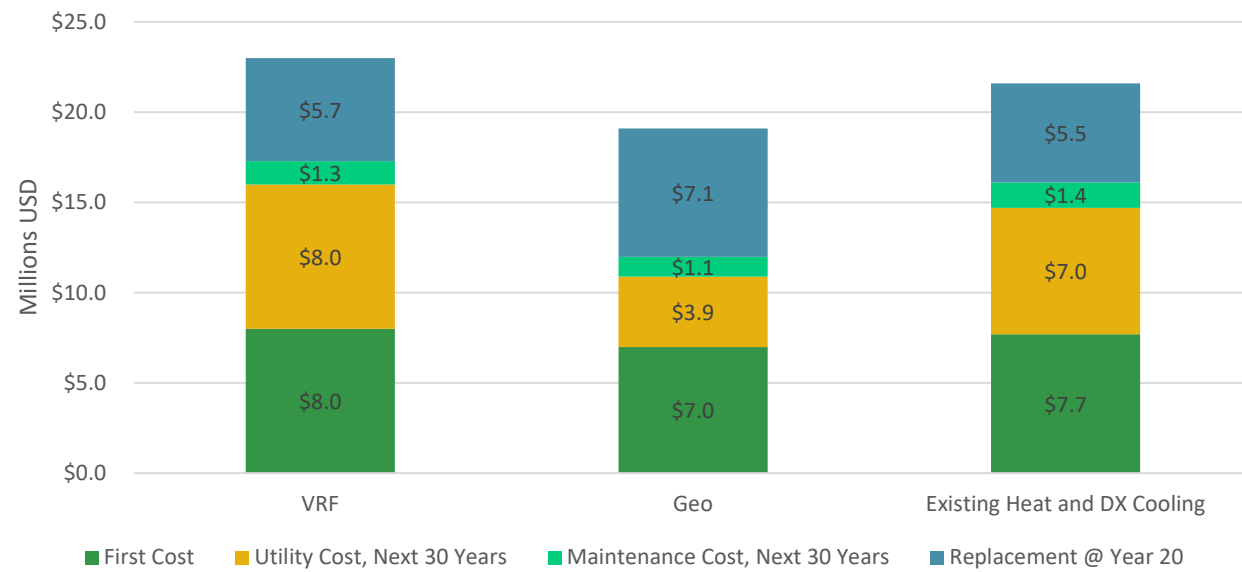
The bar charts build a picture of costs, starting with initial investments that would occur in year one of any given project, followed by a series of 30-year life cycle costs. Complete life cycle costs for are shown first, followed by the same case with IRA incentives applied, and ending with the addition of Mass Save incentives.

30 YEAR LIFE CYCLE COST

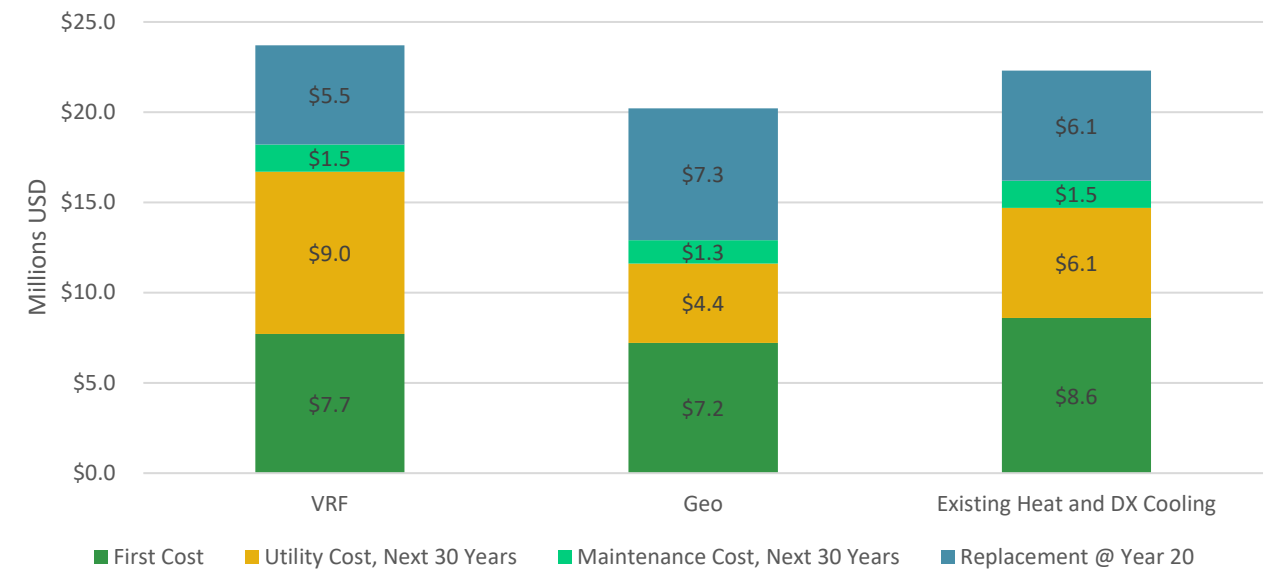


30-YEAR LIFE CYCLE COST WITH IRA INCENTIVES

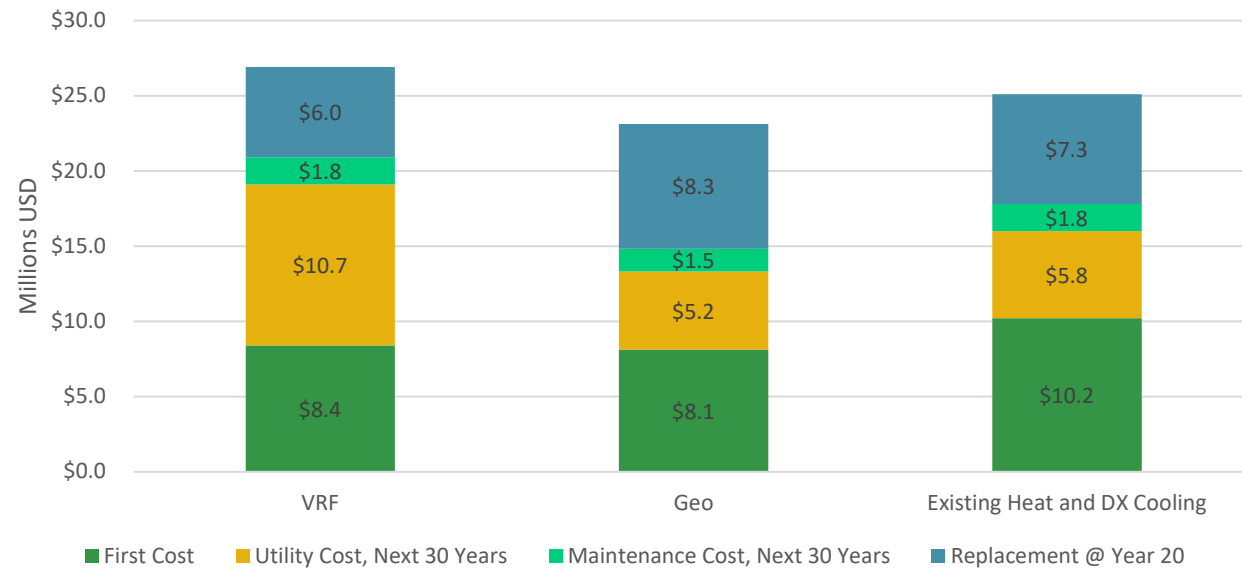
Bishop 30 Year Lifecycle Cost with IRA Incentives



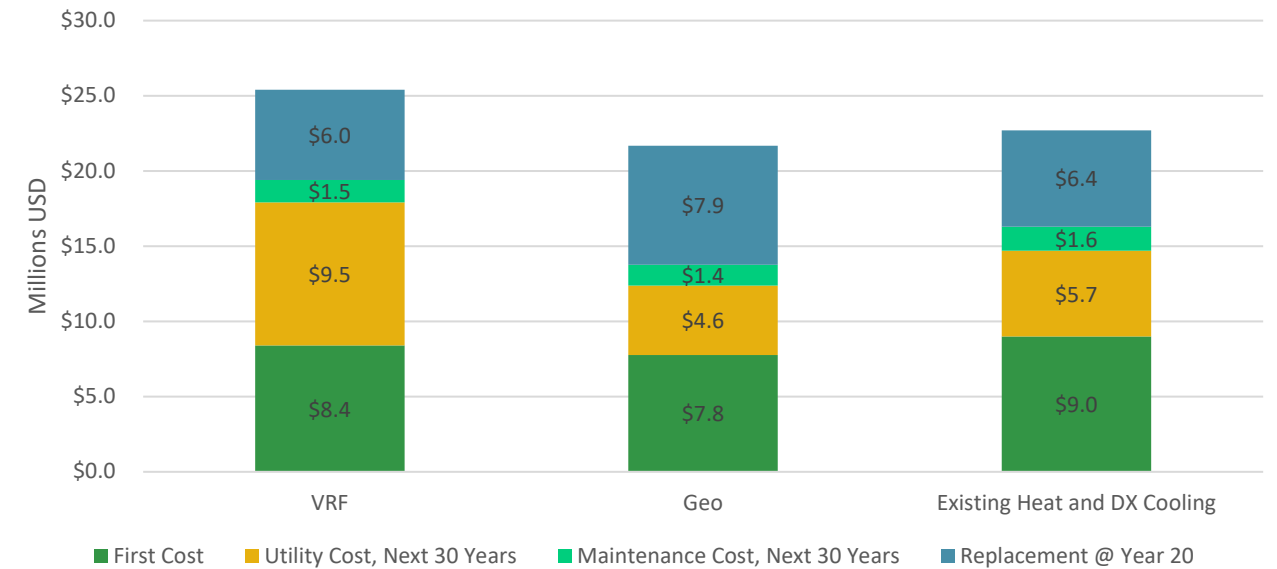
Brackett 30 Year Lifecycle Cost with IRA Incentives



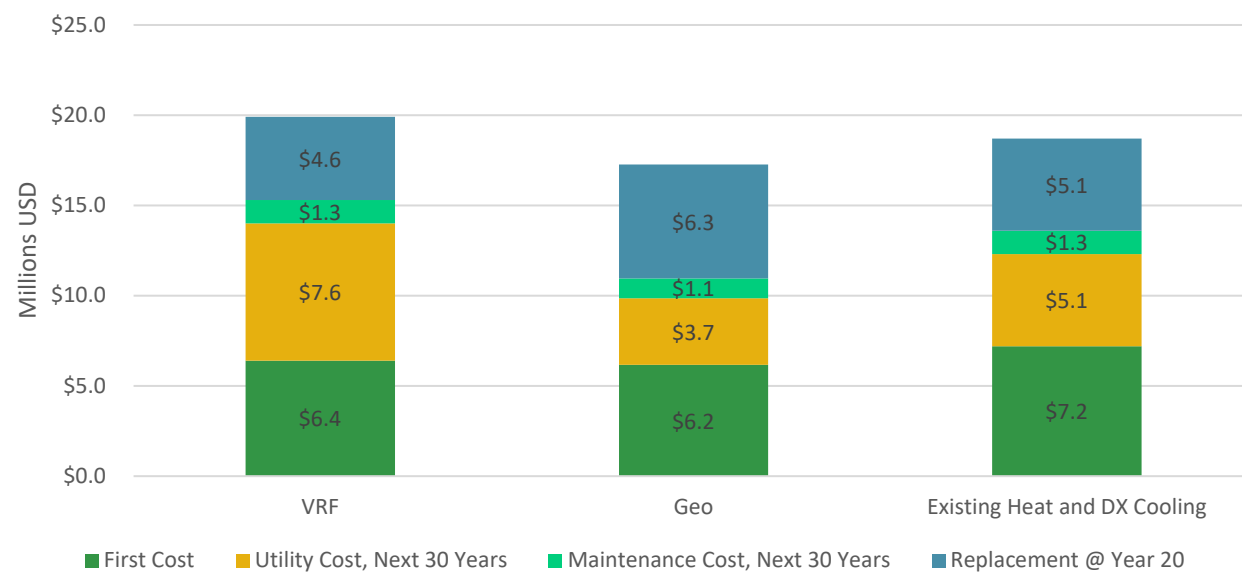
Dallin 30 Year Lifecycle Cost with IRA Incentives



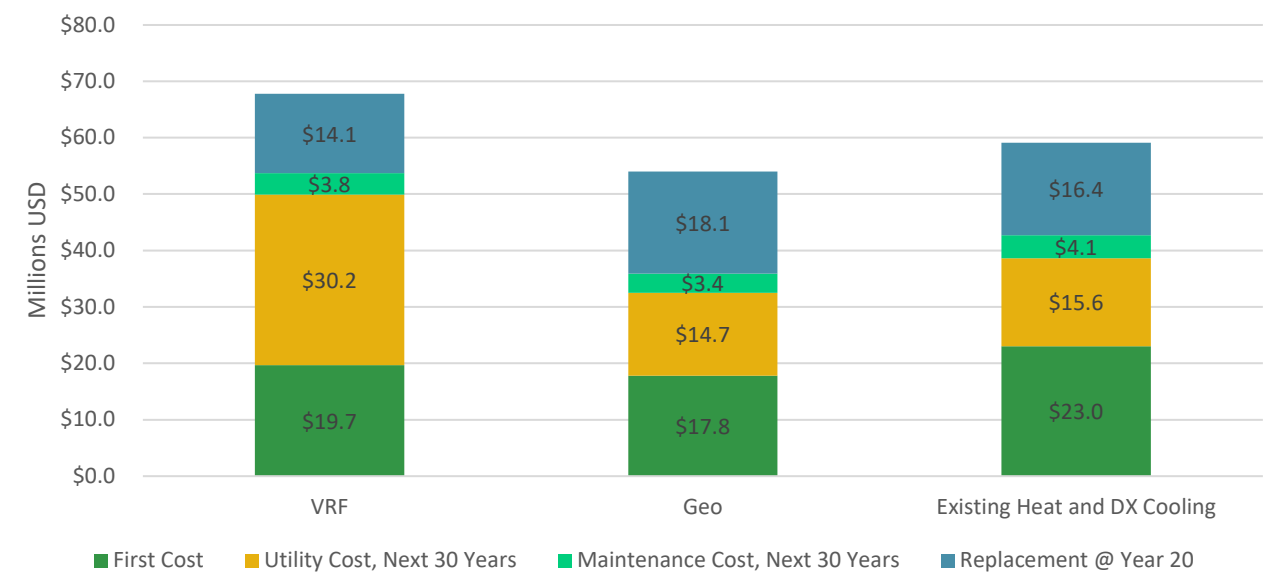
Hardy 30 Year Lifecycle Cost with IRA Incentives



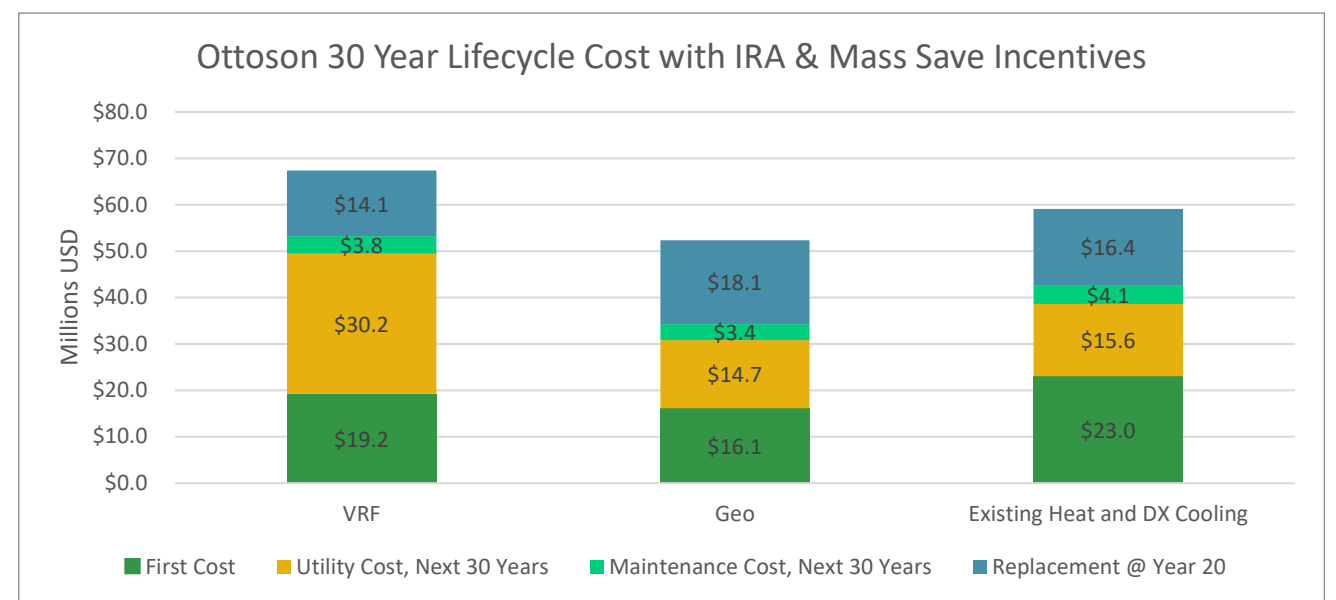
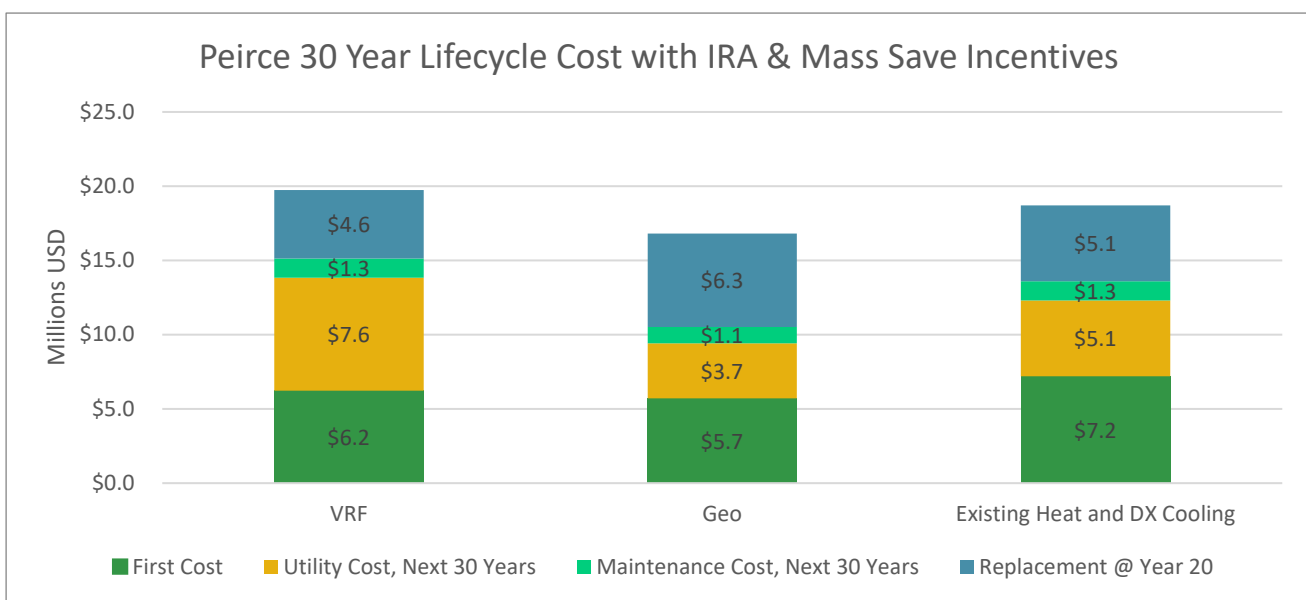
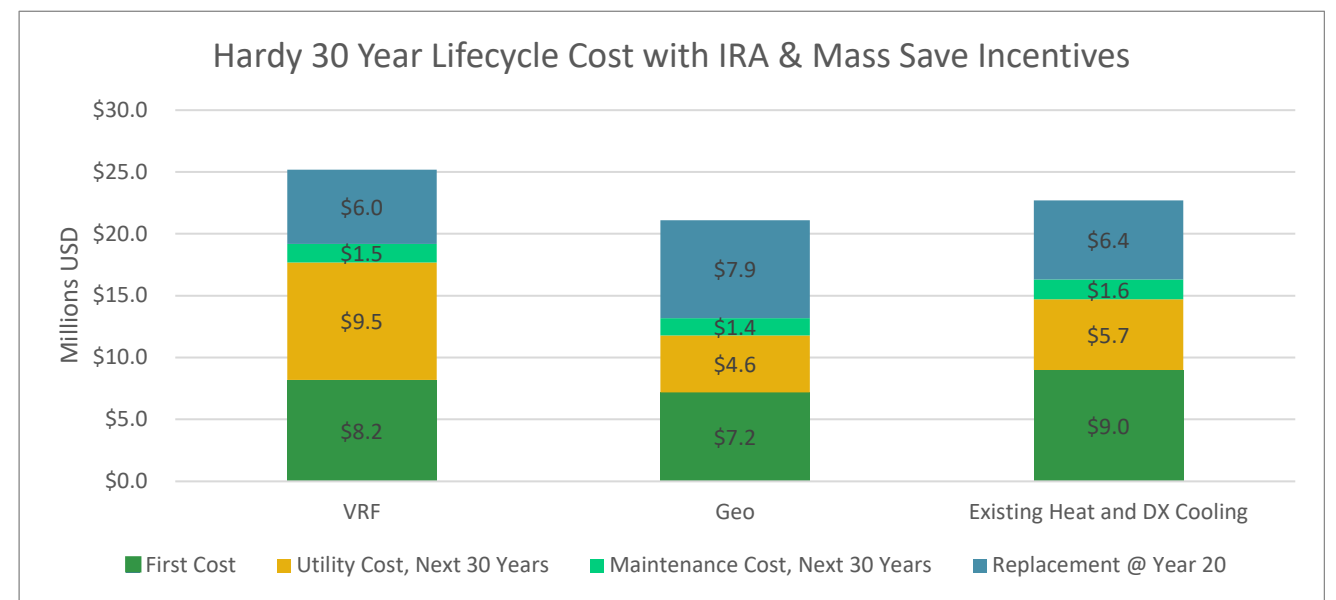
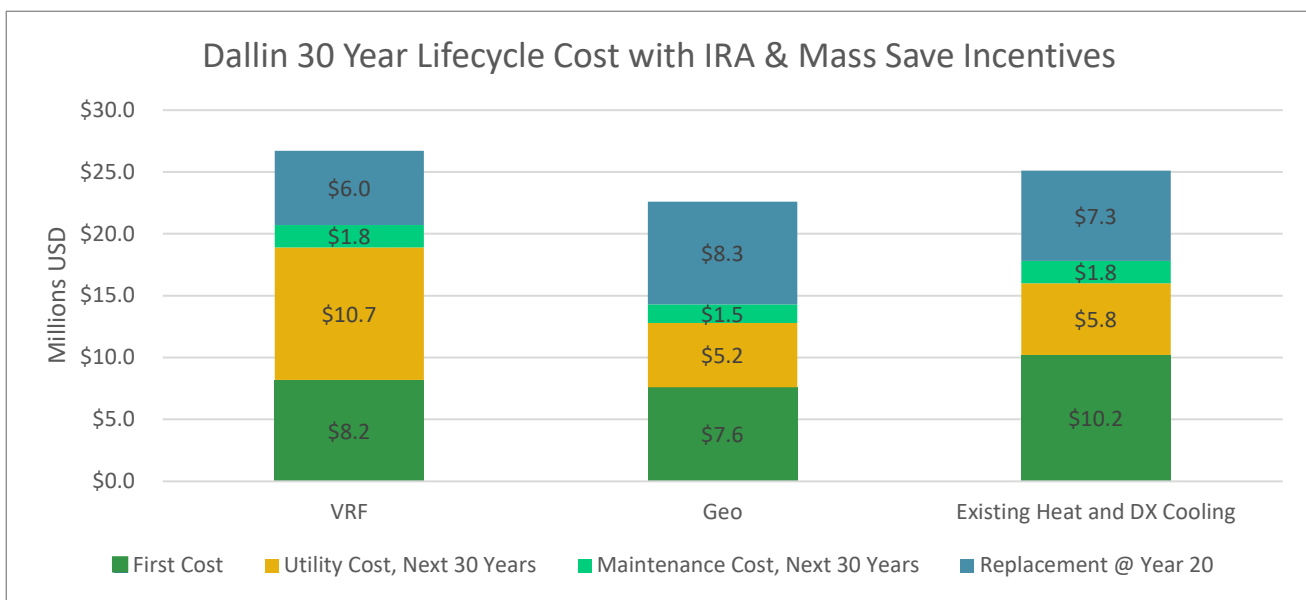
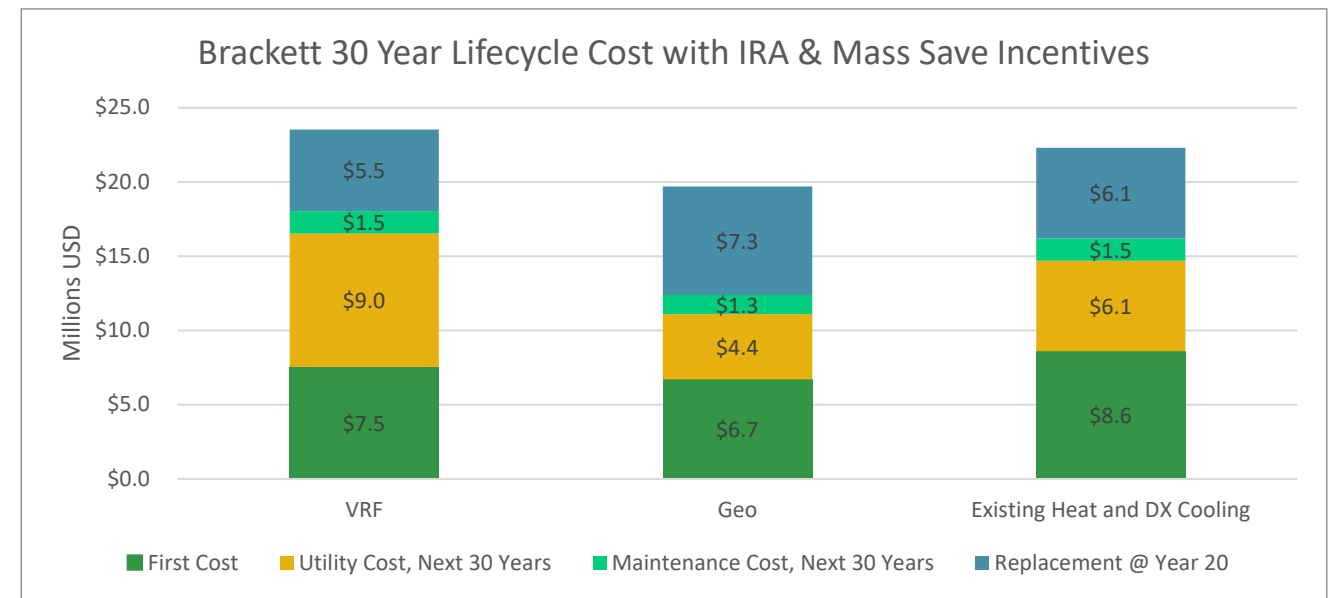
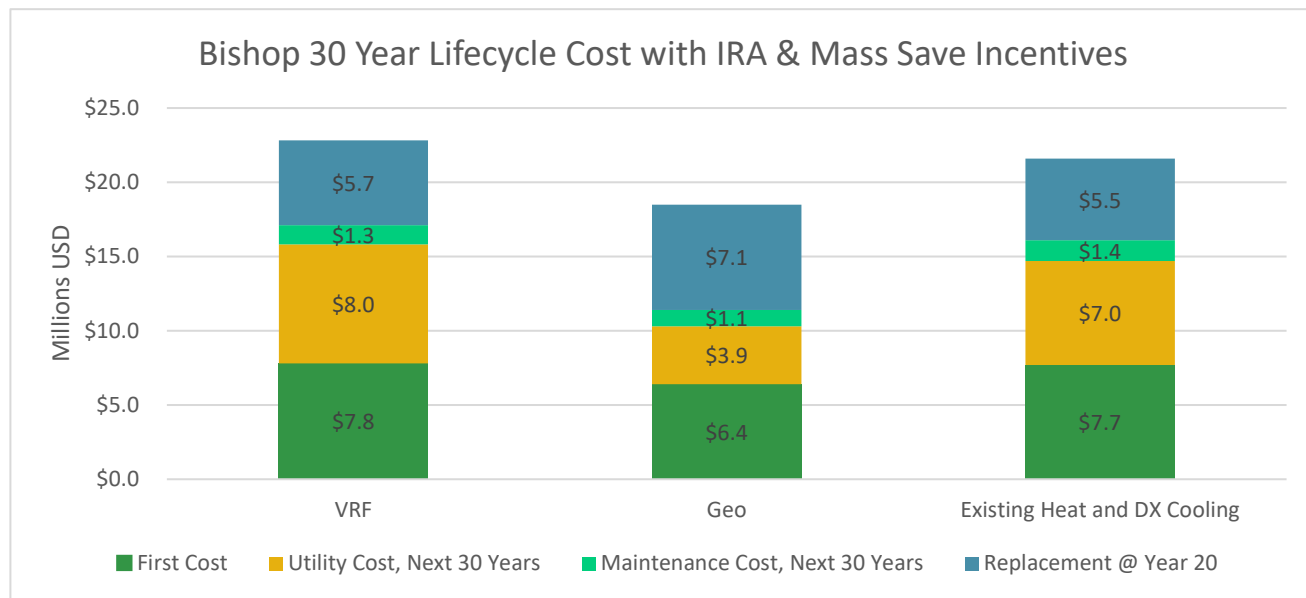
Peirce 30 Year Lifecycle Cost with IRA Incentives



Ottoson 30 Year Lifecycle Cost with IRA Incentives



30-YEAR LIFE CYCLE COST WITH IRA & MASS SAVE



Incentives

Utility Incentives

Massachusetts offers a robust utility rebate and incentive program called Mass Save that is administered through the major utility providers (National Grid, Eversource, etc.). There are several paths available within this program. The local utility should be included when embarking on any renovation project to determine if any energy efficiency measures can be utilized to receive rebates or incentives. The program details are found here: <https://www.masssave.com/en/saving/business-rebates/new-buildings-and-major-renovations/whole-building-energy-use-intensity-reduction>

PATH 2: WHOLE BUILDING EUI REDUCTION APPROACH	
Customer Incentives	
Incentive rate range (based on EUI % reduction)	\$0.35/sf - \$1.25/sf
Space Heating Heat Pump Adder	
• Air Source Heat Pumps:	\$800/ton
• Variable Refrigerant Flow (VRF):	\$1,200/ton
• Ground Source Heat Pumps:	\$4,500/ton
Technical Assistance	up to 75% cost share (capped at \$20,000 per Sponsor)
Verification Incentive	50% of fee up to \$10,000

Percent EUI Reduction	
25.0% and above	\$1.25/sf
20.0% - 24.9%	\$0.75/sf
15.0% - 19.9%	\$0.50/sf
10.0% - 14.9%	\$0.35/sf

Incentives are summarized in the figures above. With 441,000 SF across the six schools and an expected reduction of at least 50-70%, there is potential to receive an incentive of ~\$550,000 in total (\$1.25/SF). If geothermal heat pumps are selected, the full \$1.25/SF is expected. If VRF is selected, the EUI reduction would be half as much as in the geothermal case, so the estimated incentive is lower. The calculations in the chart below estimated a \$1/SF for VRF. The following incentives could be anticipated for each of the schools.

Additionally, there are the Space Heating Heat Pump adders. Both electric HVAC systems considered are eligible at \$1,200/ton for VRF and \$4,500/ton for ground source heat pump. The estimated tonnage from this study was used to calculate the adder incentives.

With both incentive types, the expected Mass Save incentives are estimated to total:

	Variable Refrigerant Flow	Ground Source Heat Pump
Bishop Elementary School	\$ 169,000	\$ 599,000
Brackett Elementary School	\$ 151,000	\$ 548,000
Dallin Elementary School	\$ 189,000	\$ 529,000
Hardy Elementary School	\$ 195,000	\$ 586,000
Peirce Elementary School	\$ 159,000	\$ 459,000
Ottoson Middle School	\$ 438,000	\$ 1,655,000

All numbers are estimates based on the schematic designs and would need to be reassessed after Construction Drawings are completed. There are also opportunities to engage the students, faculty, and staff in the energy conversion efforts in these schools through the Mass Save program. More on those programs here: <https://www.masssave.com/en/learn/activities-and-school-resources>

Inflation Reduction Act

Within the period this study was completed, the United States House and Senate passed the Inflation Reduction Act. The \$740 billion package includes around \$370 billion for climate change and energy efforts. These provisions could result in additional funding for the Town’s electrification goals.

Public K-12 School Systems, Universities, and Municipal City/Counties are tax exempt and therefore qualify for the direct-payment option of the investment tax credit (ITC) including ground source heat pumps and solar. These incentives should apply to any projects placed into service after December 31st, 2022, which would include all six projects. For the Town of Arlington, the expected impact would include:

- ITC of 30% for projects that commence construction on or before 2032 and then phases down to 26% for projects that begin construction in 2033 and 22% for projects that commence construction in 2034. The ITC will apply as long as the property has begun construction before January 1, 2035.
 - If the phasing in the following section is adopted, then all six school projects would occur before that 2035 cut off.
- The “Direct-Payment” reimbursement similarly applies to the Solar Array, essentially providing a 30% reimbursement for installing and owning photovoltaic arrays.

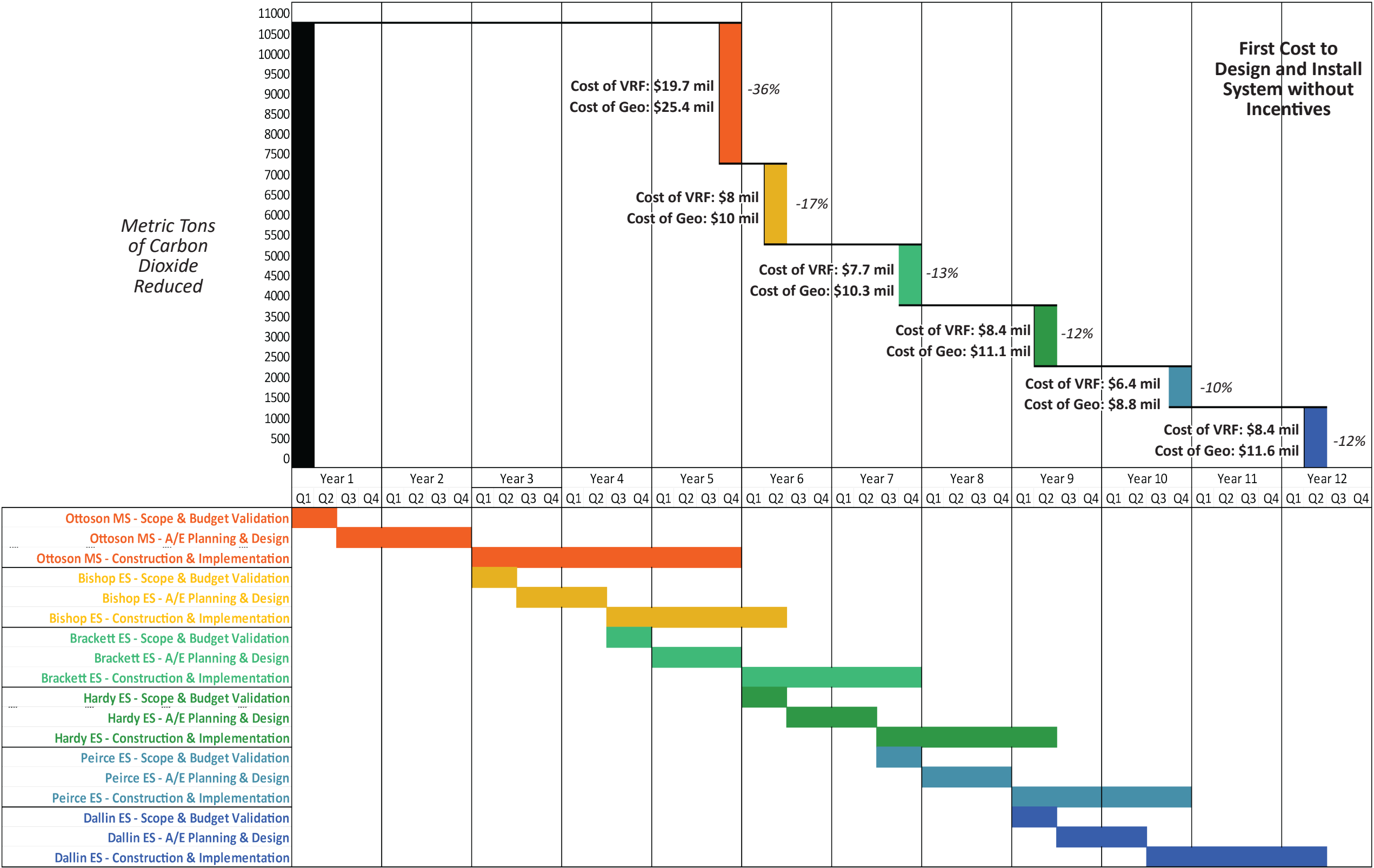
The chart below reflects the expected total incentives per system:

	Variable Refrigerant Flow	Ground Source Heat Pump
Bishop Elementary School	\$ 0	\$ 3.0 million
Brackett Elementary School	\$ 0	\$ 3.1 million
Dallin Elementary School	\$ 0	\$ 3.5 million
Hardy Elementary School	\$ 0	\$ 3.3 million
Peirce Elementary School	\$ 0	\$ 2.6 million
Ottoson Middle School	\$ 0	\$ 7.6 million

Analysis with these incentives is included below. Note that these numbers are estimates and would require review by the Town’s legal, accounting, and tax advisors to confirm.



STRATEGIC ROADMAP



The main findings of the Master Plan conducted are summarized in the Strategic Roadmap to Electrification. The analysis presented optimized the ranking and sequencing of projects based on order of magnitude of cost, emissions reduction potential, and need for infrastructure renewal. These recommendations are detailed in the Phase III section of this report. While the established goal of electrification by 2050 may seem far in the future, when considering the project scope to retrofit six schools, factoring in the design and construction period, as well as the planning for funding outlays of this magnitude in advance, the Town is should initiate this process early. The chart above is the culmination of all three phases. It shows the recommended project phasing, the impact project completion would have on site emissions in the Town of Arlington, and the first cost for each viable, fully electrified option.

FUNDING FLOWS

	Variable Refrigerant Flow		Ground Source Heat Pump	
	Spend	Rebate/Incentive	Spend	Rebate/Incentive
Year 1				
Ottoson MS	\$ (19,700,000.00)		\$ (25,400,000.00)	
Year 2				
Year 3				
Bishop ES	\$ (8,000,000.00)		\$ (10,000,000.00)	
Year 4				
Brckett ES	\$ (7,700,000.00)		\$ (10,300,000.00)	
Year 5				
Year 6				
Hardy ES	\$ (8,400,000.00)		\$ (11,100,000.00)	
Ottoson MS Mass Save Incentive		\$ 438,000.00		\$ 1,655,000.00
Ottoson MS IRA Incentive		\$ -		\$ 7,600,000.00
Year 7				
Peirce ES	\$ (6,400,000.00)		\$ (8,800,000.00)	
Bishop ES Mass Save Incentive		\$ 169,000.00		\$ 599,000.00
Bishop ES IRA Incentive		\$ -		\$ 3,000,000.00
Year 8				
Brckett ES Mass Save Incentive		\$ 151,000.00		\$ 548,000.00
Brckett ES IRA Incentive		\$ -		\$ 3,100,000.00
Year 9				
Dallin ES	\$ (8,400,000.00)		\$ (11,600,000.00)	
Year 10				
Hardy ES Mass Save Incentive		\$ 195,000.00		\$ 586,000.00
Hardy ES IRA Incentive		\$ -		\$ 3,300,000.00
Year 11				
Peirce ES Mass Save Incentive		\$ 159,000.00		\$ 459,000.00
Peirce ES IRA Incentive		\$ -		\$ 2,600,000.00
Year 12				
Dallin ES Mass Save Incentive		\$ 189,000.00		\$ 529,000.00
Dallin ES IRA Incentive		\$ -		\$ 3,500,000.00
Totals	\$ (58,600,000)	\$ 1,301,000	\$ (77,200,000)	\$ 27,476,000
Net Spend	\$	(57,299,000)	\$	(49,724,000)

The table above demonstrates the first cost allocations and expected incentives for each system. First cost represents the cost for either system in year one of a project. For any incentives, disbursement is typically allocated one year after the project is completed. The delay reflects the estimated time required to conduct a cost segregation study.

BUILDING SCIENCE LEADERSHIP



CMTA

A **LEGENCE** Company

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OFFICE OF THE SELECT BOARD

STEPHEN W. DECOURCEY, CHAIR
DIANE M. MAHON, VICE CHAIR
JOHN V. HURD
LENARD T. DIGGINS
ERIC D. HELMUTH



730 MASSACHUSETTS AVENUE
TELEPHONE 781-316-3020
FAX 781-316-3029

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

Resolved: Having convened in an open meeting on March 17th, 2025, prior to the SOI submission closing date, the Select Board of the Town of Arlington, in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest Form dated March 21st, 2025 for the Hardy School located at 52 Lake St, Arlington, MA 02474, which describes and explains the following deficiencies and the priority category(s) for which an application may be submitted to the Massachusetts School Building Authority in the future - Replacement, renovation or modernization of school facility systems, such as roofs, windows, **boilers, heating and ventilation systems**, to increase energy conservation and decrease energy related costs in a school facility.; and hereby further specifically acknowledges that by submitting this Statement of Interest Form, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the Town of Arlington/Arlington Public Schools to filing an application for funding with the Massachusetts School Building Authority.

_____	SELECT BOARD
_____	OF THE
_____	TOWN
_____	OF
_____	ARLINGTON

A true record
ATTEST:

By: _____
Town Clerk



Town of Arlington, Massachusetts

Future Select Board Meetings

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	April_-_June_Calendar.pdf	April - June Calendar

April

2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5 Annual Town Election
6	7 Select Board Meeting	8	9	10	11	12 First night of Passover
13	14	15	16	17	18	19
20 Easter Last night of Passover	21 Patriots' Day	22	23	24	25	26
27	28 Town Meeting	29	30			

May

2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11 Mother's Day	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26 Memorial Day	27	28	29	30	31

June

2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15 Father's Day	16	17	18	19 Juneteenth	20	21
22	23	24	25	26	27	28
29	30					



Town of Arlington, Massachusetts

Articles for Review:

Summary:

Article 9 Bylaw Amendment / Observance of Town Employee Holidays
Article 11 Bylaw Amendment / Arlington Historical Commission Inventory
Article 20 Acceptance of Legislation / Clause 22I of M.G.L. Chapter 59, §5
Article 21 Acceptance Legislation / Chapter 399 of the Acts of 2024
Article 46 Endorsement of Parking Benefit District Expenditures

ATTACHMENTS:

Type	File Name	Description
▢ Reference Material	Warrant_Article_Text.pdf	Warrant Article Text
▢ Reference Material	3.17.25_-_Warrant_Articles_Memo.pdf	Warrant Article Memo
▢ Reference Material	WA_9_Reference.pdf	Article 9 Reference
▢ Reference Material	WA_11_Reference.pdf	Article 11 Reference
▢ Reference Material	WA_11_Presentation.pdf	Article 11 Presentation
▢ Reference Material	WA_20_Reference.pdf	WA 20 Reference
▢ Reference Material	WA_20_Memo.pdf	WA 20 Memo
▢ Reference Material	WA_46_Parking_Benefits_District_Budget_Memo.pdf	WA 46 Parking Benefits District Budget Memo

Warrant Article Text

ARTICLE 9 BYLAW AMENDMENT / OBSERVANCE OF TOWN EMPLOYEE HOLIDAYS

To see if the Town will vote to amend Title I, Article 6, Section 16 of the Town's Bylaws to define and clarify the observance of employee holidays, including, but not limited to, when holidays fall upon a weekend day; or take any action related thereto.

(Inserted at the request of the Director of Human Resources)

ARTICLE 11 BYLAW AMENDMENT / ARLINGTON HISTORICAL COMMISSION INVENTORY

To see if the Town will vote to amend Title VI, Article 6 of the Town Bylaws to create a process for homeowners to remove their home from the Town's Historic Structures Inventory; or take any action related thereto.

(Inserted at the request of Lois Kaznicki and ten registered voters)

ARTICLE 20 ACCEPTANCE OF LEGISLATION / CLAUSE 22I of M.G.L. Chapter 59, §5

To see if the Town of Arlington will accept the provisions of Massachusetts General Laws Chapter 59, Section 5, Clause 22I, as created by Chapter 178 of the Acts of 2024, commonly referred to as the "HERO Act", which authorizes an annual increase in the amount of the exemption to veterans granted under General Laws Chapter 59, Section 5, Clause 22, Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F by the percentage increase in the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) for the previous year as determined by the Commissioner of Revenue, to be effective for applicable exemptions granted for any fiscal year beginning on or after July 1, 2025; or take any action related thereto.

(Inserted at the request of the Town Manager and Veterans; Service Director)

ARTICLE 21 ACCEPTANCE OF LEGISLATION / CHAPTER 399 OF THE ACTS OF 2024

To see if the Town will vote to accept the provisions of Chapter 399 of the Acts of 2024, or any other applicable laws, to permit the installation, operation, and maintenance of school bus violation detection monitoring systems on school buses; or take any action related thereto.

(Inserted at the request of the School Committee)

ARTICLE 46 ENDORSEMENT OF PARKING BENEFIT DISTRICT EXPENDITURES

To see if the Town will vote to endorse the Parking Benefit District operating and capital expenditures for Fiscal Year 2025 prepared by the Town Manager and the Select Board consistent with the Town Bylaws; or take any action related thereto.

(Inserted at the request of the Town Manager)



**Town of Arlington
Legal Department**

Michael C. Cunningham
Town Counsel

50 Pleasant Street
Arlington, MA 02476
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E-mail:
mcunningham@town.arlington.ma.us
Website: www.arlingtonma.gov

To: Arlington Select Board

Cc: James Feeney, Town Manager

From: Michael C. Cunningham, Town Counsel
Jaclyn Munson, Deputy Town Counsel

Date: March 14, 2025

Re: Annual Town Meeting Warrant Articles: 9, 11, 20, 21, 46

The Legal Department writes to provide the Select Board with a summary of the above referenced warrant articles to assist in your consideration of these articles at your upcoming hearing on March 10, 2025.

**ARTICLE 9 BYLAW AMENDMENT / OBSERVANCE OF TOWN EMPLOYEE
HOLIDAYS**

To see if the Town will vote to amend Title I, Article 6, Section 16 of the Town Bylaws to define and clarify the observance of employee holidays, including, but not limited to, when holidays fall upon a weekend day; or take any action related thereto.

(Inserted at the request of the Director of Human Resources)

This article was inserted at the request of the Director of Human Resources and seeks to amend the Town Bylaws governing the observance of holidays by regular Town employees.

This proposed amendment to the referenced Bylaw is part of an effort to work towards greater consistency in holiday observance credit afforded to Town employees across all departments. On a motion made by Mrs. Mahon and approved by the Board, this matter was tabled to be considered at the next Select Board Meeting. It is noted that the Town Manager has prepared a memorandum setting forth a comprehensive history regarding the issue considered by this proposed bylaw amendment with accompanying rationale and that memorandum is attached to the agenda materials for this meeting.

If the Select Board approves favorable action, a draft motion that could be sent to the Town Meeting may read as follows:

VOTED: that the Town does and hereby amends Title I, Article 6, Section 16 of the Town's Bylaws, or take any action related thereto, so that the new provision of Title I reads:

Section 16. Holidays

*(ART. 44, ATM – 06/16/97)(ART. 17, ATM – 05/30/07)
(ART. 12, ATM – 4/26/21)*

In order to qualify for holiday credit, a regular employee shall have worked on the last regularly scheduled work day prior to, and the next regularly scheduled work day following such holiday, unless it is an absence for which compensation is payable as provided under this by-law.

The following days in each year shall be considered as holiday credits:

<i>New Year's Day</i>	<i>Labor Day</i>
<i>Martin Luther King Day</i>	<i>Indigenous Peoples Day</i> <i>(known as the state and federal holiday "Columbus Day")</i>
<i>Washington's Birthday</i>	<i>Veterans' Day</i>
<i>Patriot's Day</i>	<i>Thanksgiving Day</i>
<i>Memorial Day</i>	<i>Christmas</i>
<i>Juneteenth Independence Day</i>	<i>Christmas Eve Day if same falls on a Monday</i>
<i>Independence Day</i>	<i>through Friday</i>

*Whenever a holiday falls on Saturday, ~~another working day off with pay shall be arranged at the discretion of the department head.~~ **the holiday shall be observed on the preceding Friday.** Good Friday shall be considered as half day holiday credit. The day following Thanksgiving shall be treated as a holiday unless an employee is scheduled to work same by the department*

head in which event the employee will be granted another day off at the discretion of the department head.

**ARTICLE 11 BYLAW AMENDMENT / ARLINGTON HISTORICAL
COMMISSION INVENTORY**

To see if the Town will vote to amend Title VI, Article 6 of the Town Bylaws to create a process for homeowners to remove their home from the Town's Historic Structures Inventory; or take any action related thereto.

(Inserted at the request of Lois Kaznicki and ten registered voters)

This Article was inserted at the request of Lois Kaznicki and ten registered voters. It is expected that Ms. Kaznicki will present the reasoning for the submission of the proposed bylaw amendment at the public hearing on this Article.

However, by way of background, it is noted that the Arlington Historical Commission ("AHC") was created in 1970 through local acceptance of M.G.L. c. 40, §8D, which was passed by the Massachusetts State Legislature in 1963. That statute enabled cities and towns, after local acceptance of the law, to establish an historical commission that would serve to seek "the preservation, protection and development of the historical or archeological assets of such city or town." G.L. c. 40, §8D. Arlington's AHC was established, in accordance with the powers and limitations set forth in G.L. c. 40, §8D in 1970 through the adoption of our local bylaw, Title VI, Article 6. As set forth in Section 1 of the bylaw, the AHC "is empowered to advise the Arlington Building Inspector with respect to the issuance of permits for demolition, and the issuance of demolition permits for significant buildings is regulated as provided in this bylaw."

In addition to its authority to regulate the issuance of demolition permits, the AHC also maintains an "inventory" that consists of a list of buildings that have been designated by the AHC to be significant buildings after a finding by the AHC that the building is either: (1) importantly associated with one or more historic persons or events, or with the broad

architectural, cultural, political, economic or social history of the Town of Commonwealth, or (2) historically or architecturally significant (in terms of period, style, method of building construction, or association with a famous architect or builder) either by itself or in the context of a group of buildings. The list of buildings that the AHC has included on its inventory is maintained and is available for view on the Town's website. By definition contained in Section 2B(2) of the bylaw, a building listed on the inventory is considered a "significant building." A building that is a "significant building" is, after application by its owner, subject to a hearing before the AHC to determine whether it may be demolished without the imposition of a one year delay. If the AHC determines, after a hearing, "that the demolition of the significant building would be detrimental to the historical or architectural heritage or resources of the Town, such building shall be considered a preferably-preserved significant building." Title VI, Article 6, Section 3(D). Subject to possible exemptions, if the AHC determines that a building is a preferably-preserved significant building, no demolition permit for the building may be issued until at least twelve months after the date of the application for demolition.

Currently, there is no process contained in the subject bylaw by which a building owner could seek to have a property removed from the AHC inventory list. To include such a process would not necessarily conflict with the language of AHC's enabling state statute, G.L. c. 40, §8D. In fact, a similar provision included in the Town of Mendon's bylaws at their 2022 Annual Town Meeting was approved by the Attorney General's Municipal Law Unit.

Accordingly, if the Select Board approves favorable action, a draft motion that could be sent to the Town Meeting may read as follows:

VOTED: that the Town does and hereby amends Title VI, Article 6 of the Town's Bylaws, or take any action related thereto, so that the revised Title VI, Article 6 reads:

TITLE VI
ARTICLE 6
HISTORICALLY OR ARCHITECTURALLY
SIGNIFICANT BUILDINGS

Section 1. Intent and Purpose

*This Bylaw is adopted for the purpose of preserving and protecting, through advance notice of their proposed demolition, significant buildings within the Town which constitute or reflect distinctive features of the architectural, cultural, political, economic or social history of the Town, to encourage owners of preferably-preserved significant buildings to seek out persons who might be willing to purchase and to preserve, rehabilitate, or restore such buildings rather than demolish them, and by furthering these purposes to promote the public welfare, to preserve the resources of the Town, and to make the Town a more attractive and desirable place in which to live. To achieve these purposes, the Arlington Historical Commission is empowered to advise the Arlington Building Inspector with respect to the issuance of permits for demolition, and the issuance of demolition permits for significant buildings is regulated as provided in this Bylaw. **This Bylaw also provides a remedial process through which "Significant Buildings" listed on the "Inventory" created and maintained by the Arlington Historical Commission, and provided to the Building Inspector, may be removed from said "Inventory."***

Section 2. Definitions

(ART 24, ATM – 05/01/89) (ART. 31, ATM – 04/25/90)

The following terms, when used whether or not capitalized in this Bylaw, shall have the meanings set forth below, unless the context otherwise requires.

A. "Building" Any combination of materials forming a shelter for persons, animals or property

B. "Significant Building" any building;

1. which is listed on, or is within an area listed on, the National Register of Historic Places, or which is the subject of a pending application for listing on said National Register, or

2. which is or has been listed on an Inventory provided to the Building Inspector by the Commission

C. "Preferably-Preserved Significant Building" - any significant building which the Commission determines is in the public interest to be preserved or rehabilitated rather than to be demolished

D. "Commission" - the Arlington Historical Commission

E. "Commission Staff" - the chairperson of the Commission, or any person to whom the chairperson has delegated authority to act as Commission staff under this Bylaw

F. "Inventory" - a list of buildings on file at the Massachusetts Historical Commission that

have been designated by the Commission to be significant buildings after a finding by the Commission that a building either

1. is importantly associated with one or more historic persons or events, or with the broad architectural, cultural, political, economic or social history of the Town or Commonwealth, or

2. is historically or architecturally significant (in terms of period, style, method of building construction, or association with a famous architect or builder) either by itself or in the context of a group of buildings

G. "Building Inspector" - the person occupying the office of Building Inspector or otherwise authorized to issue demolition permits

H. "Application" - an application for a permit for the demolition of a building which shall include a photograph of the building taken within the past year

I. "Permit" - A permit issued by the Building Inspector for demolition of a building pursuant to an application therefor

J. "Demolition" - the act of pulling down, destroying, removing, or razing a building, or commencing the work of total or substantial destruction with the intent of completing the same. A structure is considered to be demolished if it is destroyed due to the owner's failure to maintain a watertight and secure structure. A structure shall also be considered to be demolished if more than twenty-five percent (25%) of the front or side elevations are removed or covered. Each elevation shall be calculated separately

K. "Business Day" - a day which is not a legal municipal holiday, Saturday or Sunday

L. "Homeowner" – The owner of record of a Building, as found on the Town's local tax list

Section 3. Procedure

(ART. 24, ATM – 05/01/89) (ART. 31, ATM – 04/25/90)

A. The Building Inspector, on the day of receipt of an application for demolition of a listed significant building or within the next five successive business days, shall cause a copy of each such application for a demolition permit to be forwarded to (or shall satisfy themselves that a duplicate of such application has been submitted to) the Commission.

No demolition permit shall be issued at that time. Within five business days of the receipt by the Building Inspector of said application they shall personally inspect the site of the proposed demolition to verify the accuracy of the information contained in the application with particular attention to the correctness of the address listed.

B. The Commission shall fix a reasonable time, within 30 days of receiving a copy of such application, for a hearing on any application and shall give public notice thereof by publishing notice of time, place, and purpose of the hearing in a local newspaper at least fourteen days before said hearing and also, within seven days of said hearing, mail a copy of said notice to the applicant, to the owners of all property deemed by the Commission to be affected thereby

as they appear on the most recent local tax list, to the Arlington Historic Districts Commission and to such other persons as the Commission shall deem entitled to notice.

C. If, after such hearing, the Commission determines that the demolition of the significant building would not be detrimental to the historical or architectural heritage or resources of the Town, the Commission shall so notify the Building Inspector within ten (10) days of such determination. Upon receipt of such notification, or after the expiration of fifteen (15) days from the date of the conduct of the hearing if such person has not received notification from the Commission, the Building Inspector may, subject to the requirements of the State Building Code and any other applicable laws, bylaws, rules and regulations, issue the demolition permit.

D. If the Commission determines that the demolition of the significant building would be detrimental to the historical or architectural heritage or resources of the Town, such building shall be considered a preferably-preserved significant building.

E. Upon a determination by the Commission that the significant building which is the subject of the application for a demolition permit is a preferably-preserved significant building, the Commission shall so advise the applicant and the Building Inspector, and no demolition permit may be issued until at least twelve months after the date of the application for demolition.

F. Notwithstanding the preceding sentence, the Building Inspector may issue a demolition permit for a preferably-preserved significant building at any time after receipt of written advice from the Commission to the effect that either

1. the Commission is satisfied that there is no reasonable likelihood that either the owner or some other person or group is willing to purchase, preserve, rehabilitate or restore such building, or

2. the Commission is satisfied that for at least twelve months the owner has made continuing bona fide and reasonable efforts to locate a purchaser to preserve, rehabilitate and restore the subject building, and that such efforts have been unsuccessful.

G. No permit for erection of a new structure on the site of an existing significant building may be issued prior to issuance of a permit for demolition of such existing building.

H. No permit for erection of a new building, paving of drives or for parking shall be issued for two (2) years if a structure is demolished in violation of this bylaw.

Section 4. Inventory Removal Procedure

The removal of listed properties from the Inventory that have been previously determined to include Significant Buildings shall be done in accordance with the following procedures:

A. A Homeowner may submit an application to the Commission to seek the removal of a Building they own from the Inventory.

B. Any proposal to add or remove a specific building, structure, property to or from the Inventory shall be considered at a public hearing. The expense of publishing and mailing the hearing notice shall be borne by the applicant.

C. The Commission shall provide public notice of any such hearing in accordance with the provisions set forth in Section 3(B) of this Bylaw.

D. If the Commission fails to hold a hearing within 45 days of the filing of a Homeowner's application for removal, the application shall be automatically granted.

E. At its hearing on an application filed by a homeowner to remove a building, structure or property from the Inventory, the Commission shall consider the following issues:

- 1. Whether the initial inclusion of the building on the Inventory was done in error.**
- 2. Whether the building is listed on, or is within an area listed on, the National Register of Historic Places, or which is the subject of a pending application for listing on said National Register.**
- 3. The extent, if any, of the documented historical significance of the building.**
- 4. Whether there are any factual circumstances that have changed since the building's inclusion on the Inventory that impact the building's status as a historically significant building.**

F. If the Commission finds, after a public hearing, that a building, structure or property is a historically Significant Building, it shall remain on the Inventory. If the Commission finds it is not, the building, structure or property shall be removed from the Inventory. If a Homeowner's application is denied, the Commission shall document the reasons for the denial in a notice of decision.

G. Notice of the Commission's decision shall be mailed to the applicant Homeowner within 14 days of the conclusion of the hearing and a copy of the decision shall also be provided to the Building Commissioner.

Section-4 5. Emergency Demolition

Nothing in this article shall be construed to derogate in any way from the authority of the Inspector of Buildings derived from Chapter 143 of the General Laws. However, before acting pursuant to this chapter the Inspector of Buildings shall make every reasonable effort to inform the Chairperson of the Historical Commission of the Inspector's intentions to cause demolition before the Inspector initiates same.

Section-5 6. Historic Districts Act

Nothing in this bylaw shall be deemed to conflict with the provisions of the Historic Districts Act, General Laws, Chapter 40C, with respect to requirements as to notice, a hearing and issuance by the Arlington Historic District Commissions of a certificate of appropriateness, a certificate of non-applicability or a certificate of hardship prior to demolition of any building in an historic district, provided, however, that any temporary building erected or maintained in an historic district pursuant to a certificate issued by the Arlington Historic District Commissions may be demolished in a manner not inconsistent with the terms of said certificate.

Section-6 7. Severability

If any section, paragraph or part of this Bylaw is for any reason declared invalid or unconstitutional by any court, every other section, paragraph and part shall continue in full force and effect.

**ARTICLE 20 ACCEPTANCE OF LEGISLATION / CLAUSE 22I OF M.G.L.
CHAPETR 59, §5**

To see if the Town will vote to accept the provisions of Massachusetts General Laws Chapter 59, Section 5, Clause 22I, as created by Chapter 178 of the Acts of 2024, commonly referred to as the “HERO Act”, which authorizes an annual increase in the amount of the exemption to veterans granted under General Laws Chapter 59, Section 5, Clause 22A, Clause 22B, Clause 22C, Clause 22F by the percentage increase in the U.S.. Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) for the previous year as determined by the Commissioner of Revenue, to be effective for applicable exemptions granted for any fiscal year beginning on or after July 1, 2025; or take any action related thereto.

(Inserted at the request of the Town Manager and Veterans’ Services Director)

This Article was inserted at the request of the Town Manager and Veterans’ Services Director. It is expected that the Town’s Veterans’ Services Director, Philip McGovern, will present the reasoning for the local acceptance of this legislation at the public hearing on this Article.

In August, 2024, Governor Healy signed into law Chapter 178 of the Acts of 2024, known as an act Honoring, Empowering and Recognizing Our Service Members and Veterans

(“HERO” Act). The Act includes over thirty provisions that seek to positively impact the lives of veterans in Arlington and across Massachusetts by measures that include increasing benefits for disabled veterans, expanding access to behavioral health treatment, supporting businesses that hire veterans and further codifying medical and dental benefits.

This proposed acceptance of legislation warrant article seeks to assist veterans in Arlington by adoption of one of the municipal finance provisions contained in the HERO Act – Clause 22I of G.L. c. 59, §5. Clause 22I, if adopted, would increase the amount of tax exemption granted to veterans on their domiciles under Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F annually by a cost of living adjustment (“COLA”) determined by the Department of Revenue (“DOR”) based on the consumer price index (“CPI”). An example provided by the Massachusetts Division of Local Services is that is a Clause 22 recipient will receive a \$400 exemption, but a community accepts the local option outlined by this warrant article and the CPI increases by 5%, the total exemption would increase to \$420.

Clause 22I is a local option that must be accepted by a city or town for it to apply to that municipality. Acceptance requires a positive vote of our Town Meeting.

Accordingly, if the Select Board is inclined to move favorable action, a draft motion would be as follows:

VOTED: That the Town of Arlington does hereby accept General Laws Chapter 59, Section 5, Clause 22I, which authorizes an annual increase in the amount of the exemption granted under General Laws Chapter 59, Section 5, Clause 22, Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F by the percentage increase in the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) for the previous year as determined by the Commissioner of Revenue, to be effective for applicable exemptions granted for any fiscal year beginning on or after July 1, 2025.

ARTICLE 21

ACCEPTANCE OF LEGISLATION / CHAPTER 399 OF THE ACTS OF 2024

To see if the Town will vote to accept the provisions of Chapter 399 of the Acts of 2024, or any other applicable laws, to permit the installation, operation, and maintenance of school bus violation detection monitoring systems on school buses; or take any action related thereto.

(Inserted at the request of the School Committee)

This Article was inserted at the request of the School Committee. It is expected that School Committee Chair, Paul Schlichtman, or another representative of the School Committee, will present the reasoning for the local acceptance of this legislation at the public hearing on this Article.

On January 10, 2025, Governor Healy signed a law that allows school districts in cities and towns to record motor vehicles that fail to stop for a school bus. The law is intended to improve compliance with school bus safety laws and better protect students who ride buses. The specifics of the law are set forth in G.L. c. 40, §71. The law permits municipalities to install a school bus violation monitoring system on buses ridden by a municipality's students. The monitoring system is defined as a camera system that monitors and detects a motor vehicle overtaking or passing a school bus when the bus is stopped and displaying front and rear alternating flashing red signal lights, when the bus has been stopped to allow students to exit or board the bus. Buses equipped with monitoring systems will be required to display signage indicating their use.

The system would record video and produce still images of the rear of a motor vehicle, with the license plate, with violations determined by at least one recording of the vehicle immediately before the violation and while illegally passing the stopped school bus. Recordings and photographs would be reviewed by local law enforcement officers or their approved technicians to determine whether a violation occurred. If it is determined that a violation

occurred, the officer would issue a citation to the vehicle's registered owner. Any penalty for a violation would not be considered a criminal conviction. Recordings that do not identify violations must be destroyed after thirty days. All recordings that identify a violation must be destroyed within one year of the final disposition of proceedings related to enforcement of the violation.

In its passage of the bill at the state level, proponents argued that it was needed to provide additional protection to students that current enforcement efforts do not provide. Advocates cited data collected by Peabody Public Schools and releases in May, 2024 that documented 4,412 incidents of vehicles failing to stop for school buses between September, 2023 and May, 2024 – an average of approximately 2.3 illegal passes per day.

It is noted that there is some lack of clarity in the legislation regarding how these monitoring systems would be installed on vehicles not owned by the municipality. It is likely that an agreement with the vehicle owner would need to be drafted. It is also noted that acceptance of this law does not require the town or its school district to install a monitoring system, it simply provides the option. Further, it is requirement that if the statute is accepted by the town, the law shall only become effective through a majority vote of the School Committee.

If the Select Board is inclined to move favorable action, a draft motion would be as follows:

VOTED: That the Town of Arlington does hereby accept General Laws Chapter 40, Section 71, enabling the Town to install, operate and maintain school bus violation detection monitoring systems on school buses to enforce violations pursuant to Sections 14 and 14C of the Massachusetts General Law Chapter 90. Any system put in place shall be limited to monitoring and detecting violations of motor vehicle operators who fail to stop for a school bus.

**ARTICLE 46 ENDORSEMENT OF PARKING BENEFIT DISTRICT
EXPENDITURES**

To see if the Town will vote to make additions, deletions and/or modifications to the Classification and Pay Plan, appropriate a sum of money to fund same, if necessary, determine how the money will be raised and expended; or take any action related thereto.

(Inserted at the request of the Town Manager)

This Article was inserted at the request of the Town Manager. It is expected that the Town Manager will present the reasoning for this endorsement at the public hearing on this Article.

It is noted that pursuant to Title I, Article 11 of the Town Bylaws, "Parking Benefit District Expenditures," proposed Parking Benefit District Operating and Capital Expenditures are prepared by the Manager and the Parking Implementation Governance Committee before submission for endorsement by the Finance Committee and Capital Planning Committee respectively; and subsequently Town Meeting. The Board's review of proposed expenditures with the Manager constitutes the first step in this process. If the Board is inclined towards positive action, a motion could be as follows:

VOTED: That the Select Board approves the operating and capital expenditures proposed by the Town Manager and Parking Implementation Governance Committee, and recommends Town Meeting's endorsement of the votes of the Finance and Capital Planning Committee's respectively.



**Town of Arlington
Office of the Town Manager**

**James Feeney
Town Manager**

**730 Massachusetts Avenue
Arlington, MA 02476-4908
Phone (781) 316-3010
Website: www.arlingtonma.gov**

To: Members of the Select Board

Cc: Caryn Malloy, Human Resources Director
Michael Cunningham, Town Counsel

From: James Feeney, Town Manager

Date: March 12, 2025

RE: Annual Town Meeting Warrant Article 9- Observance of Town Employee Holidays

Please receive this memorandum in support of the Bylaw Amendment proposed in Article 9, which seeks to amend the language of Title I, Article 6, Section 16 of the Town's Bylaws. In short, Article 9 seeks to amend the treatment of holidays that fall on Saturdays in the following manner:

Whenever a holiday falls on Saturday, ~~another working day off with pay shall be arranged at the discretion of the department head.~~ the holiday shall be observed on the preceding Friday.

For background, Town employees enjoy the benefit of holiday credits for specific days each calendar year. For full-time employees, a holiday credit is the equivalent of one full day's pay, except for Good Friday, which is considered a half-day holiday credit. If a Town-recognized holiday falls on a weekday, the holiday is observed on the same day. When a Town-recognized holiday falls on a non-workday, full-time employees are entitled to a different day off in lieu of the actual holiday. The currently recognized holidays falling on a date certain that could land on a

non-workday in any given year include New Year's Day, Juneteenth, Independence Day, Veteran's Day, and Christmas Day.

When a holiday falls on a Sunday, it has been customary for the following Monday to be the official observance. This practice, which is not codified in Title I, Article 6, Section 16, is consistent with M.G.L. c. 4 § 7, which states in relevant part that a "Legal holiday shall include January first, June nineteenth, July fourth, November eleventh, and Christmas Day, or the day following when any of said days occurs on Sunday", as well as the practices of the U.S. Office of Personnel Management governing the Federal observance of holidays. The proposed bylaw amendment does not impact the observance of Sunday holidays.

When a holiday falls on a Saturday though, the customary practice has been for employees to use the corresponding holiday credit on any date arranged with their respective Department Head. Each employee could largely choose any day of the year, so it required careful administrative tracking throughout the year, and could even result in employees failing to utilize their holiday credit. The proposed amendment offered by Article 9 effectively converts the holiday credit due to employees in these instances from a so-called 'floating holiday' to a clearly defined holiday observance.

Notably, the proposed amendment seeks consistency in the treatment of Saturday holidays between union and non-union personnel. The Collective Bargaining Agreements (CBAs) in effect for the period July 1, 2024, through June 30, 2027, ratified with American Federation of State, Country and Municipal Employees Council 93, Local 680 AFL-CIO (AFSCME) and Service Employees International Union – Local 888 (SEIU) both codified changes in the treatment of legal holidays that fall on a Saturday. The relevant changes are illustrated herein via contract language excerpted from the respective CBAs available on the Town's website.

AFSCME:

6. Article XI, Holidays

Amend Article IX as follows:

(new language in **bold**, deleted language ~~crossed~~):

“...

Whenever Christmas Eve or Juneteenth falls on a Monday through Friday inclusive, it shall be considered a full holiday and holiday pay shall be a day's pay at straight time rate- no other provisions of this paragraph shall apply to Christmas Eve or Juneteenth. At the discretion of the Town, employees may be asked to participate in professional development regarding Juneteenth. A half-holiday shall mean four hours off with pay. Good Friday in each year shall be considered as a half-day holiday credit.

For all employees with the exception of full-time public safety dispatchers and library assistants, whenever a legal holiday falls on Saturday, the holiday shall be observed on the preceding Friday, another working day off with pay shall be arranged at the discretion of the department head. For full-time public safety dispatchers and library assistants, whenever a legal holiday falls on Saturday, another working day off with pay shall be arranged at the discretion of the department head.

If the holiday falls on Sunday, the following day will be the working day off. Holiday pay shall be a day's pay at straight time rate.

SEIU:

3. Article XI, Holidays

Amend Article IX as follows:

(new language in **bold**, deleted language ~~crossed~~):

“Whenever Christmas Eve falls on a Monday through Friday inclusive, it shall be considered a full holiday and holiday pay shall be a day's pay at straight time rate – no other provisions of this paragraph shall apply to Christmas Eve. At the discretion of the Town, employees may be asked to participate in professional development regarding Juneteenth. A half-holiday shall mean four hours off with pay. Good Friday in each year shall be considered as a half-day holiday credit. Whenever a legal holiday falls on Saturday, **the holiday shall be observed on the preceding Friday, another working day off with pay shall be arranged at the discretion of the department head.** If the holiday falls on Sunday, the following day will be the working day off. Holiday pay shall be a day's pay at straight time rate. If a holiday occurs within an employee's vacation period then he/she shall receive an additional day's vacation with pay.”

Ultimately, this change will bring greater clarity to holiday observances for both staff and the general public with regard to the expectations for Town Hall and administrative offices. An example of the confusion that can arise under existing practice was illustrated by the observance of Veterans Day in 2023. Then, the Federal government and Commonwealth of Massachusetts both officially observed the holiday on the preceding Friday, but Town offices were open for business. In such an instance, residents may not have expected to have the opportunity to utilize Town services given that Arlington Public Schools were closed, other governmental agencies were

closed, and since they were enjoying the holiday observance themselves. Further, it should be noted that other area municipalities including Belmont, Bedford, Burlington, Cambridge, Lexington, Medford and Winchester (list is representative, not exhaustive) all explicitly observe Saturday holidays on the preceding Friday.

Looking ahead to illustrate potential operational uncertainty, Independence Day will fall on a Saturday in 2026. The Federal government published that this holiday will be observed on July 3rd. Were our current practice still in effect at that time, Town Hall and administrative offices would be open on this day. It could reasonably be expected that many Town employees would choose to take their floating holiday on Friday, July 3rd; however, a sufficient number of staff (likely the least senior employees and department heads) would be required to work on this day to sufficiently staff offices. Indeed, this change in the treatment of Saturday holidays ratified by unionized employees and being contemplated for non-union employees results in some loss of flexibility under fairly infrequent circumstances, but at the same time ensures that *all* covered employees have the opportunity to enjoy these periodic respites and participate in any festivities tied to underlying holiday at the same time as family and friends.

Importantly, Friday is only a 4-hour workday for those full-time employees who work at Town Hall and other administrative offices that close at 12 noon on Fridays. To ensure the equitable distribution of holiday credit, additional consideration is given so these employees receive the full benefit of what would otherwise have been a 7-hour holiday credit. It has been customary for Town Hall and other administrative offices to close at 4pm on Thursday preceding the Friday observance. This practice has been in effect since 2001, when then-Town Manager Farrington, with agreement from employee unions and approval by the Select Board, changed Town Hall and administrative office work hours to incorporate Thursday evening hours (see enclosed memorandum). The most recent examples of this treatment of Friday holidays include Veterans Day in 2016 and again in 2022 where, as a result, Town Hall and administrative offices closed at 4pm on the preceding Thursday. This is evidenced by Town Notices excerpted below.

2016:

Nov. 11 Town Hall Admin Offices, Libraries Closed

Nov. 10 Town Hall Admin Office Close at 4PM, Libraries Regular Hours.

[View full list of offices.](#)

2022:

November 10: Town Hall Admin Offices Close at 4PM

This includes all offices at 730 Mass Ave (Town Hall), 51 Grove Street (DPW Yard), 27 Maple Street (Senior Center), 422 Summer Street (Recreation Office), and Police Records Room

November 11: Town Hall Administrative Offices Closed

This includes all offices at 730 Mass Ave (Town Hall), 51 Grove Street (DPW Yard), 27 Maple Street (Senior Center), 422 Summer Street (Recreation Office), and Police Records Room

[View Veterans Day Parade information](#)

Conversely, when a holiday other than Thanksgiving falls on a Thursday, the same Town Hall and administrative office employees enjoy additional holiday credit commensurate with the evening hours. As such, to control for this potential inequitable distribution of holiday credit, the same longstanding practice noted above necessitates these same employees to work a full day on the following Friday. This happened with respect to Independence Day in 2019. Please see Town Notice excerpted below:

2019:

The Town offices below and the Robbins and Fox Libraries will be closed on July 4th. Office hours for July 5th are denoted by office.

730 Mass Ave (Town Hall) (July 5 8:00 a.m. - 4:00 p.m.)

51 Grove Street (DPW Administrative Offices & Inspectional Services) (July 5 8:00 a.m. - 4:00 p.m.)

27 Maple Street (Senior Center) (July 5 8:00 a.m. - 4:00 p.m.)

422 Summer Street (Recreation Office) (July 5 8:00 a.m. - 4:00 p.m.)

112 Mystic Street (APD Records Room) (July 5 8:00 a.m. - 4:00 p.m.)

411 Mass Ave (Fire Administration Office) (July 5 8:00 a.m. - 4:00 p.m.)

July 4 No Trash Collection, 1-Day Delay Rest of Week Holiday

There will be no trash collection on Thursday, July 4th due to the holiday. Trash normally collected on Thursday will be picked up on Friday. The Friday pick-up will be call JRM directly at 1-800-323-4285. For additional trash and recycling information [please visit arlingtonma.gov/recycle](http://arlingtonma.gov/recycle).

Finally, it is reasonable to question whether Article 9 should seek to further amend Title I, Article 6, Section 16 of the Town's Bylaws to codify the treatment of Thursday hours. It should be noted though the Town Bylaws do not presently prescribe or otherwise restrict business hours or employee work hours. In fact, to do so may infringe upon our employees' fundamental rights to bargain work hours, and Town leadership's ability, through the Town Manager and Select Board, to set business hours in conjunction with employees to best deliver municipal services to residents. Bylaws by their nature are inflexible, not readily amended, and cannot contemplate the myriad complexities which could arise in a given year in a workplace with various employee unions, and various employees working different schedules at different buildings on different days of the week. Consequently, codification could be a potential disservice to employees who wished

to pursue more favorable schedule alternatives based on the unique circumstances presented in a particular year through the treatment of different holidays. Thank you for your consideration.



LOCAL 680

ARLINGTON TOWN EMPLOYEES

MASSACHUSETTS PUBLIC EMPLOYEES COUNCIL 93
MASSACHUSETTS STATE LABOR COUNCIL, AFL—CIO

Telephone 781-641-0303


June 4, 2001

Philip J. Farrington
Town Manager
Town of Arlington
730 Massachusetts Avenue
Arlington, MA 02476

Dear Mr. Farrington:

On May 24, 2001 members of AFSCME Local 680 were asked to vote on a proposed change of the working hours for certain offices within the Town. Sixty-nine (69) members voted and approved the change of hours by a forty-five (45) to twenty-four (24) vote.

AFSCME Local 680 hereby gives you permission to go ahead with the change in hours as outlined in your memo to the Board of Selectmen dated May 30, 2001.


James Dodge
President
AFSCME, Local 680



Town of Arlington
Office of the Town Manager

Philip J. Farrington
Town Manager

730 Massachusetts Avenue
Arlington MA 02476-4908
Phone (781) 316-3010
Fax (781) 316-3019
E-mail: pfarring@town.arlington.ma.us

MEMORANDUM

DATE: May 30, 2001
TO: Board of Selectmen
FROM: Philip J. Farrington, Town Manager *pf*
SUBJECT: Change in Working Hours of Certain Town Offices

I. Purpose:

Discussions have been on-going on how to make certain town services more directly accessible to the public. The idea is to open Town Hall and perhaps certain other offices one evening a week. This will allow people who are not in town during regular business hours to interact directly with these offices during the evening hours.

More specifically, the Assessors, Town Clerk and Treasurer/Collector offices receive heavy foot traffic. Opening one evening a week will increase direct access. Some Town Hall offices currently do not see significant walk-in customers. Perhaps evening hours will increase direct citizen contact.

- A. The following offices will be included: All Town Hall offices, Board of Health, Community Safety Administrative Office, Comptroller, Council on Aging, Veteran's Agent and Recreation.

NOTE:

Because Recreation has so many part-time employees, the Recreation Office will be open both Thursday nights and Friday afternoons.

The Comptroller's office will arrange that telephones will be working properly and that computer support will be available for all departments.

- B. All other departments will not be included. More specifically, the following departments will not be included: Building Department, Fire, Library, Police, Public Works (divisions outside of Town Hall), Town Counsel, and Whittemore-Robbins House.

NOTE:

The Library is already open evenings. Some Police services, such as gun permits, are being done in the evenings. Human Services located in the Whittemore-Robbins House already work flexible hours.

II. Specific Proposal:

The specific proposal is for a one-year trial of the following plan to be effective on Monday, June 25, 2001.

- A. The current regular working hours are 9:00 a.m. to 5:00 p.m., Monday through Friday. During June, July, and August, the current regular hours are 8:00 a.m. to 4:00 p.m.

The revised hours, which would be year round, would be:

1. Monday, Tuesday, and Wednesday: 8:00 a.m. to 4:00 p.m.
 2. Thursday: 8:00 a.m. to 7:00 p.m.
This is an increase of three hours.
 3. Friday: 8:00 a.m. to noon.
This is a decrease of three working hours for employees.
(Lunch hour is not counted as a work hour). This is a decrease of four hours to the public.
- B. Opening at 8:00 a.m. all year round allows more people to do business at Town Hall on their way to work in the morning. A 5:00 p.m. closing is still too early for most people to leave work and to complete business at Town Hall before closing.
- C. When a holiday falls on a Friday, the offices close at 4:00 p.m. on Thursday. When a holiday is on a Thursday, the offices will be open all day Friday. Town Hall offices currently close on Thanksgiving (a Thursday) and the day after Thanksgiving (a Friday).
- D. Because all full time employees will be working Thursday evenings (allowing for normal vacation and sick leave), full service will be offered Thursday evenings. Vacation approval is at the discretion of the department.
- E. Employees absent on Thursday will be charged for 1.5 days. Absence on Friday will be 0.5 days.
- F. The plan has the support of Local 680 and NAGE.

G. Exceptions will be approved on a case-by-case basis with the approval of the Town Manager and the appropriate unions.

III. Impacts and options:

1. The ideal plan is to simply increase the work week, pay employees extra for working Thursdays, and stay open all day Friday. We do not have the funds to do this.
2. A second option is to open additional hours on Saturday. Again this is a cost factor. Required union approval would probably not be attainable except at high cost.
3. Working a long day on Thursday can be tiring for employees. However, Friday will be a short day and a nice benefit for employees. Most employees are already enthusiastic about this idea.
4. Closing early on Fridays does deny access to people accustomed to coming to Town Hall on Friday afternoon.
 - A. Professionals who use Town Offices (appraisers, bank officials, bill collectors) can adjust their schedules so that they need not come to Town Hall on Fridays.
 - B. Very few citizens come to Town Hall on Friday afternoons. Many of these come to pay a bill. Bills can always be paid by mail. There is a "strong box" on Town Hall steps for people to pay bills.
5. No bills will be due on Fridays.

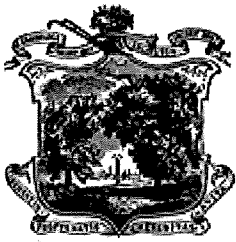
IV. Summary:

This idea has been adopted in a good number of municipalities. I know we can make this work. I am confident that both the public and the employees will see the benefits of this change. The Board is requested to support this change for a one-year trial period, beginning the week of June 25. It could take as long as 6 to 8 months for the public to fully utilize the evening hours, especially because the first three months will be summer months.

Cc: Department Heads

PJF:gt

:workinghrs



Town of Arlington, Massachusetts
730 Massachusetts Ave., Arlington, MA 02476
Phone: 781-316-3000

webmaster@town.arlington.ma.us

Selectmen Minutes 06-04-2001

TOWN OF ARLINGTON BOARD OF SELECTMEN

Meeting Minutes
 Monday, June 4, 2001
 7:15 p.m.

Present: Mr. Lyons - Chair, Mrs. Mahon - Vice Chairman, Mr. Greeley, Mrs. Dias, Mr. Hurd
 Also Present: Mr. Farrington, Mr. Maher, Ms. Cove

FOR APPROVAL

Minutes of Meeting: May 21, 2001

Mrs. Dias moved approval. 4-0-1 SO VOTED

Mr. Greeley abstained.

AT & T Broadband Petition

Assisted Living Center, 1403 Mass. Ave.

Conduit will begin at pole #84/155 and continue down Mass. Ave. into private property at above address.

Mr. Hurd moved approval. SO VOTED

APPOINTMENTS & REAPPOINTMENTS

New Election Worker

Patricia L. O'Reardon, 78 Rhinecliff St., Pct. 4, U

Mrs. Dias moved approval. SO VOTED

Appointment

Symmes Advisory Committee

(One Town Meeting member with financial or land development background to be appointed by the Board of Selectmen)

Mrs. Dias moved to appoint Mr. Harry McCabe of Madison Avenue. SO VOTED

LICENSES & PERMITS

Automatic Amusement Device License Transfer

VFW #1775, , 600R Massachusetts Avenue, Jan Kimborowicz, Manager

Pinball Machine/The Shadow, Midway Mfg.

Mr. Greeley moved approval. SO VOTED

Automatic Amusement Device License

VFW #1775, 600R Massachusetts Avenue, Jan Kimborowicz, Manager

Megatouch Video Machine, Merit Industries, Inc.

Mr. Hurd moved approval. SO VOTED

Request for Annual Flag Burning Ceremony, 6/14/01, 7:00 p.m.

Arlington Lodge of Elks

Mrs. Mahon moved approval. SO VOTED

Request to Hang Banner on Town Hall for 10 Days &
Event Information Displayed on Message Board

Threshold Sports for BMC Software Grand Prix, 7/8/01

Mr. Greeley moved approval. SO VOTED

Request for Sidewalk Permit

Request to Hang Banner on 6/6/01 across Mass. Ave. in Front of Flora Restaurant

Feast of the East, 6/16/01

Mr. Hurd moved approval. SO VOTED

TRAFFIC RULES & ORDERS/OTHER BUSINESS

Request for Handicap Parking Space

Barbara Biondo-Bozzi, 107 Varnum St.

Request for Handicap Parking Space

Charles Biondo, 105 Varnum St.

Mr. Hurd moved approval of both requests subject to the condition that there be no overnight parking between the hours of 1:00 a.m. to 5:00 a.m.

Request for Handicap Parking Space

Ronald O'Keefe, 64 Wyman St.

Mr. Greeley moved approval. SO VOTED

For Approval: Notice of Project Change Comments

Cambridge CSO Project

Mrs. Dias moved to approve the draft comments as presented. Mrs. Dias complimented the work of Weston and Sampson Engineering on their work on behalf of the Town.

Mrs. Mahon expressed her firm belief that the comments from the Town should be much more forceful and further that she would like to see an extension on the comment period for the project. She explained in detail why. She expressed particular concern about the long-term commitment to the elimination of CSOs. She also requested that the Conservation Commission be asked to hold a determination of applicability hearing on the matter.

The Board discussed the issue of whether or not to move forward with the comments. Don Golluci, Project Manager for Weston and Sampson explained that the City of Cambridge is eligible for 0% loans on this project but strict timelines need to be met.

David Stoff, Chairman of the Alewife Brook Advisory Committee complimented the Town on its efforts on this matter. He requested that the Board ask for an extension in the comment period. Mr. Stoff stated that the document received did not have distribution list (a distribution list is a requirement under CSO policy). He also expressed his concern that the Department of Public Health was not involved and his concern that the proposed berm only addresses part of the brook and lastly requested that the Somerville CSO project notifications be included in the Town's comments.

Mrs. Dias amended her motion to recommend approval of the draft comments as presented if the document was distributed as set out in CSO policy, if not, there should be an extension requested; she further moved that the comments from the Somerville NPDES permit be included with the comments should the consultant agree they are relevant, and lastly to inquire in the Town's comments about the long term commitment to the elimination of CSOs. SO VOTED

Mrs. Mahon moved to request that the Conservation Commission do a determination of applicability hearing on the Cambridge CSO Project. SO VOTED

For Approval: New Town Hall Hours

Town Manager

Mr. Hurd moved approval of the new hours to be effective June 25, 2001 8 a.m. to 4 p.m. Monday through Wednesday, 8 a.m. to 7 p.m. on Thursday and 8 a.m. to 12 noon on Fridays. SO VOTED

Report on Conditions of Parks & Fields

Town Manager

The Board complimented the memo from Richard Bento, Director of Public Works. The Board also requested that the information in the memo be placed on the Town's website. The Board requested that the Arlington Youth Development group receive a copy of the memo. Mr. Lyons suggested that the idea that School Principals being responsible for the maintenance of the school's fields be suggested to Superintendent Donovan.

Correspondence Received

Dept. of Housing & DHCD's 2001 Ch. 40B Subsidized Housing Inventory Be Rec'd
Community Dev.

Fred Dixon Concerns with Yellow Cab Be Rec'd
142 Summer St.
The Chairman referred this matter to Town Counsel.

Rich and Jan Concerns with Domino's Pizza and 11 Water St. Be Rec'd
Marchant
15 Court St.

Arlington Catholic Parking for Arlington Catholic Students in Municipal Lot Be Rec'd
The Chairman referred this matter to the municipal parking subcommittee.

William Rowe Letter of thanks to Arlington Police Department Be Rec'd
11 Water St.

Franklin W. Hurd, Jr. Safety and traffic concerns on Gardner St. etc. Be Rec'd
Arlington Housing
Authority
The Chairman asked that these concerns be forwarded to Fred Ryan, Director of Police Services for his comments and that the matter appear on the next regular meeting agenda.

Timothy Murnane Pricing and programming changes Be Rec'd
AT&T Broadband

Mr. Greeley moved receipt of correspondence. SO VOTED

New Business

The Town Manager commented on a memo he submitted to the Board outlining many appointments to various committees and commissions that need to be made.

Mrs. Mahon announced to the Board that the Conservation Commission had received a grant of \$33,000 from Sharon McGregor of Secretary Durand's Office for Meadowbrook Park. She indicated that Mr. Tony Chella was grateful to the Board for his proclamation he received at his retirement party. She indicated that she had communicated with the Chairman of the School Committee about the possibility of having a joint meeting in the fall. She invited her colleagues to the ribbon cutting for the park

dedicated to the late cyclist Nicole Reinhart at the Cutter School on June 23, 2001. She requested that the residents of East Arlington be better informed about area bridge construction being performed by the state, she requested that the project managers look into ways to minimize noise during the night.

Mrs. Dias requested that the Manager follow up on issues involving Stony Brook Road and the Mill Brook.

Mr. Hurd requested that signage voted by the Board for Lorne Road be posted. He also commented that the conditions at Mt. Pleasant Cemetery have improved but he requested that alternative funding sources for the preservation of old stones, of 150 years or more, be looked into.

Mr. Lyons requested that his fellow Board members indicate to him which subcommittees they would be interested in serving on. He requested that "undoing racism" be placed on the next agenda. He requested that the potholes in the town get some extra attention, as they appear quite prolific. He reminded people to obey the Town's leash law.

Mr. Hurd gave a brief update on the Peirce School Playground.

Mr. Greeley moved to adjourn the meeting at 9:13 p.m. SO VOTED

A true record. Attest:

Caryn E. Cove
Board Administrator

Draft of Main Motion

Amend Title VI, Article 6

See: <https://www.arlingtonma.gov/town-governance/laws-and-regulations/town-bylaws/title-vi-building-regulations#A6>

Section 1. Intent and Purpose – Insert at end “This Bylaw also provides a remedial process for ‘Significant Buildings’ as listed on an Inventory provided to the Building Inspector by the Commission to be removed from said Inventory.”

Section 2. Definitions – Insert at end “L. ‘Homeowner’ – The owner of record of a Building, as found on the Town’s local tax list.”

Insert new Section 7. “Removal Procedure”:

- A. A Homeowner may submit an application to the Commission to remove a Building they own from the Inventory or to appeal the new addition to the Inventory of a Building they own.
- B. The Commission shall include such applications in its usual business, and the same requirements for hearings, notices, and timelines shall apply to these applications as applies to other applications as stipulated in Title VI, Article 6, Section 3, Paragraph B.
- C. If the Commission fails to hold a hearing within 30 days, the Homeowner’s application for removal shall be automatically granted.
- D. At such hearing, the Commission shall consider several criteria in determining whether a Building shall be removed from the Inventory, including but not limited to:
 - a. Initial inclusion on Inventory was in error
 - b. Initial inclusion on Inventory exceeded the reach of the bylaw
 - c. There is minimal or no documented historical significance to the building
 - d. Prior changes during non-enforcement have removed architectural significance
 - e. Due to changes in knowledge, standards, or priorities since the building’s inclusion on the Inventory, the structure no longer meets a reasonable understanding of historical significance.
 - f. The continued inclusion of the building on the Inventory will impose a burden – financial, logistical, or otherwise – that outweighs the historical significance of the property.
- E. If any of the above criteria apply, the Commission shall either:
 - a. Grant approval for Homeowner’s application, or
 - b. Deny approval for Homeowner’s application with documentation of reasons for denial
 - i. Homeowner shall have right of appeal to the Select Board
- F. The Select Board shall fix a reasonable time, within 60 days of receiving a copy of such appeal, for a hearing on any appeal and shall give public notice thereof by publishing notice of time, place, and purpose of the hearing in a local newspaper at least fourteen days before said

hearing and also, within seven days of said hearing, mail a copy of said notice to the applicant, to the owners of all property deemed by the Commission to be affected thereby as they appear on the most recent local tax list, to the Arlington Historic Districts Commission and to such other persons as the Select Board shall deem entitled to notice.

- G. If the Select Board fails to hold an appeal hearing within 60 days, the Homeowner's appeal for removal shall be automatically granted.
- H. At such hearing, the Select Board shall consider the same criteria as above (§7D, a–f) in determining whether a Building shall be removed from the Inventory.
- I. The decision of the Select Board shall be final.
- J. If a Building is removed from the Inventory, it shall no longer be subject to Arlington Historical Commission advice to the Arlington Building Inspector with respect to issuance of permits.

Select Board Hearing Warrant Article 11 – Bylaw Amendment

Arlington Historical Commission Inventory

Process & Criteria for Removal from Inventory

Submitted by Lois Kaznicki & Dr. Timur Yontar

March 17, 2025

Agenda

- Problem
- Remedy
- Process
- Criteria
- Summary

Problem: Past Mistakes Require Correction

- Over-inclusion – Homes are on the Inventory for:
 - Features beyond scope of the Bylaw, such as landscape
 - No description of historical significance
 - Features common to other surrounding homes that are not on the Inventory
- Non-enforcement
 - For at least two decades through 2024, the Office of Inspectional Services seldom referred permits for homes on Inventory to the Historical Commission
 - Many homes on the Inventory have had historic features altered or removed during that time – wood shingles removed or covered in aluminum or vinyl, trim and decorative elements removed, wood windows replaced

We believe the Town has an obligation to its homeowners and to the Historical Commission to provide a remedy for these mistakes

Remedy: Amending the Bylaw

- Petition for Removal from the Inventory
 - Amend Title VI, Article 6 of the Town Bylaws to allow a homeowner to petition to have their property removed from the Inventory
 - Create a **process** for these requests to be reviewed, similar to the process by which permits are reviewed by the Historical Commission
 - List the **criteria** that provide grounds for removal
- Why Amend the Bylaw?
 - Current Bylaw includes no remedy for past mistakes
 - Lack of a remedy is awkward and stressful for both homeowners and the Historical Commission because it clouds the current review process in uncertainty
 - Updated Bylaw with a well-constructed process will create a clear path for homeowners to seek relief
 - Petition process allows homeowners to force a conversation and documentation about the standards to which their home is being held and the reasons why

The goal is to provide relief **now** to owners of some of the more questionable homes on the Inventory from the burdens of time and money created by the current Bylaw

Petition Process

- Petition for Removal from the Inventory
 - A homeowner* may submit an application to the Historical Commission to remove a home they own from the Inventory
 - Consideration of such petitions will be included in the Commission's regular business (e.g., hearing, documentation, minutes, etc.)
 - Consideration of such petitions will be required on the same schedule as the Commission's review of permits
 - A homeowner can appeal the Commission's decision to the Select Board
- Partners: Historical Commission and Arlington Homeowners
 - The Historical Commission is an all-volunteer committee of knowledgeable individuals with good intent
 - We believe homeowners are competent to have a conversation with the Commission about the merits of their home's inclusion on the Inventory

* "Homeowner" – The owner of record of a Building, as found on the Town's local tax list.

Petition Criteria

- Criteria for Removal
 - Over-inclusion – the home's inclusion on the Inventory was problematic (*see slide 3*)
 - Non-enforcement – the home no longer has features that prompted its inclusion on the Inventory
 - Unreasonable burdens on the homeowner relative to historical significance – we want Arlington homeowners to maintain and keep their homes
 - In ways that preserve important historical features, if they are able
 - In whatever way they can, if they are not

Summary

- Amending the Bylaw provides **remedy** for past mistakes of over-including and under-enforcement
- Creating a **process** for this remedy is good governance
- The updated Bylaw may create additional work for the Historical Commission and possibly the Select Board, but this is outweighed by **benefits** to the homeowner population of Arlington and to the Town as a whole
- We recognize there are many other concerns around historic designations, such as affordable housing, energy efficiency, diversity, and equity. We believe those concerns are important, but beyond the scope of this amendment at this time.

Appendix

Inventory Sheet for 58 Bates

MACRIS link:

<https://mhc-macris.net/details?mhcid=ARL.500>

ARCHITECTURAL SIGNIFICANCE (describe important architectural features and evaluate in terms of other buildings within community)

This home is distinguished by its handsome brick and stone driveway laid in 1949 by its owner A. Wayne Thompson. 2nd floor overhang. Double chimney and window lights on sides of six panel front door.

Half the houses on the block have this

HISTORICAL SIGNIFICANCE (explain the role owners played in local or state history and how the building relates to the development of the community)

No information about historical significance

Out of scope of Bylaw

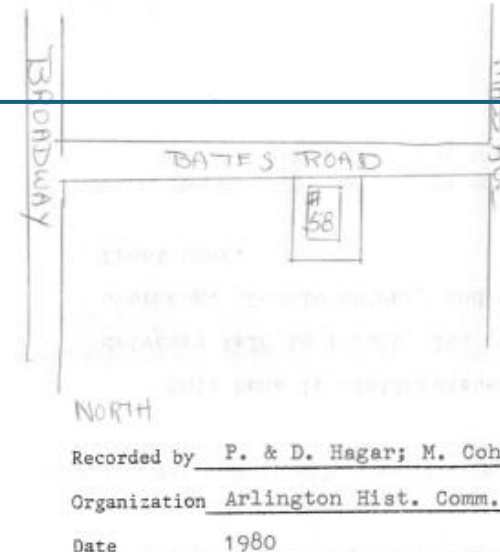
Not original. Not aluminum. Historic??

FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION
294 Washington Street, Boston, MA 02108



LOCATION IN RELATION TO
cross streets and other buildings
or geographical features.
Indicate north.



Area Form no.
424 500

Town Arlington
Address 58 Bates Rd.
Historic Name Thompson House
Use: Original Residence
Present Residence
Ownership: ☒ Private individual
Private organization A.W. Thompson + Anna Wilfert
Public
Original owner A. Wayne Thompson

DESCRIPTION:

Date 1949
Source Building Permit
Style Colonial Revival
Architect
Exterior wall fabric Aluminum siding
Outbuildings Garage
Major alterations (with dates)
Moved Date
Approx. acreage 5000 sq ft
Setting Suburban



Bulletin

BUL-2024-5

RECENT LEGISLATION

TO: Local Officials

FROM: Kenneth Woodland, Chief, Municipal Finance Law Bureau

DATE: August 2024

SUBJECT: An Act Honoring, Empowering and Recognizing Our Servicemembers and Veterans (“HERO” Act) Chapter 178 of the Acts 2024.

To keep you informed of legislative developments, the Division of Local Services (“Division”) periodically publishes a **BULLETIN** summarizing new laws that affect municipal budgets and local tax assessment, administration and collection. Each issue usually contains a cumulative summary of session laws enacted to that time and indicates whether the Division has issued any further implementation guidelines. This edition of the **BULLETIN** instead focuses on a recent legislative change affecting municipal finance found in [Chapter 178 of the Acts 2024](#) (hereinafter “Act”), entitled [An Act Honoring, Empowering and Recognizing Our Servicemembers and Veterans \(“HERO” Act\)](#).

These changes provide two new local options that increase certain veteran exemption amounts and changes how to determine eligibility for the motor vehicle exemption for a veteran with a 100% disability rating or is unemployable due to their service-connected disability.

1. Generally, what are the municipal finance related provisions in the “HERO” Act?

[Section 23](#) adds two new veteran property tax exemption clauses, [Clauses 22I and 22J](#), to [General Laws, c. 59, §5](#), which is the statute that establishes local property tax exemptions for individuals and organizations. Additionally, [Section 24](#) changes how eligibility for the motor vehicle exemption for a veteran with a service-connected disability is established under [G.L. c. 60A, § 1](#).

2. When do these provisions go into effect?

As the Act contained a preamble, the Act's effective date is the date it was signed by the Governor – August 8, 2024. However, for exemptions allowed under [G.L. c. 59, § 5](#), the exemption qualifying date is generally July 1. Changes in property tax exemption laws will generally apply prospectively as of the next qualification date after the effective date of the amendments. As such, municipalities will be able to adopt [Clauses 22I and 22J](#), as described herein, for Fiscal Year 2026.

Conversely, the change under [G.L. c. 60A, § 1](#) is effective presently for calendar year 2024 excises.

3. How does a municipality implement these changes?

[Clauses 22I and 22J](#) are local options that must be accepted by a city or town to apply in that municipality. Acceptance requires a vote of the legislative body (town meeting, town council or city council) subject to the municipality's charter. [G.L. c. 4, § 4](#). No local action is needed for the change under [G.L. c. 60A, § 1](#) to go into effect.

4. What would be the impact of [Clause 22I](#)?

[Clause 22I](#), if accepted, would increase the amount of the tax exemption granted to veterans on their domiciles under [Clause 22, Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F](#) annually by a cost-of-living adjustment (COLA) determined by the Department of Revenue (DOR) based on the consumer price index (CPI). This would work like the annual COLA adjustment determined by DOR that is already a local option for certain senior exemption amounts and financial means standards. See [G.L. c. 59, § 5, Clauses 17E, 17F and 41D](#).

For example, if a Clause 22 recipient will receive a \$400 exemption and the community accepts this option, and the CPI increases by 5%, the total exemption amount would increase to \$420.

5. What would be the impact of [Clause 22J](#)?

[Clause 22J](#), if accepted, provides an additional exemption up to 100% of the amount of the tax exemption granted to veterans on their domiciles under [Clause 22, Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F](#). This would work like the optional additional exemption that is already a local option under [G.L. c. 59, § 5C½](#) for all persons granted exemptions on their domiciles as veterans, seniors, blind persons, and surviving spouses. [Clause 22J](#) will not apply in a year in which the city or town already uses [G.L. c. 59, § 5C½](#) to grant an additional exemption to all persons granted exemptions. It is an option for cities and towns that do not use that general additional exemption to be able to just grant one for persons granted veteran exemptions. As with the general additional exemption, the application of the [Clause 22J](#) additional exemption cannot reduce the tax owed below what the taxpayer would owe on 10% of the current assessed valuation of the domicile. However, unlike the general additional exemption, the exemption granted to veterans can result in the taxpayer paying less than the taxes paid in the preceding fiscal year. To implement, the city or town must vote to accept the statute and establish the additional exemption percentage before the July 1 beginning of the fiscal year in which that percentage will first apply. The voted percentage will continue to apply in subsequent years unless and until another percentage is voted before the July 1 beginning of a later fiscal year.

6. How does the change to G.L. c. 60A, § 1 effect the veteran motor vehicle excise process?

This section changes how eligibility for the motor vehicle exemption for a veteran with a service-connected disability is established under G.L. c. 60A, § 1. Currently, the Medical Advisory Board (MAB) within the Registry of Motor Vehicles (RMV) determines that the veteran has the qualifying disability. Under the amendment, eligibility will be based on a disability determination by the U.S. Department of Veteran Affairs (VA), as is the case with other motor vehicle and property tax exemptions available to veterans. Now, a veteran will qualify for a motor vehicle exemption if the VA determines they have a 100% disability rating or deems them unemployable due to their service-connected disability.

7. What is the impact in a community that adopts both Clause 22I and 22J?

Both Clauses would operate together. For example, if a Clause 22 recipient will receive a \$400 exemption and the community accepts Clause 22I, and the CPI increases by 5%, the total exemption amount would increase to \$420. If the community further accepts Clause 22J (or G.L. c. 59, § 5C½) and increases by the maximum 100% the amount of the tax exemption granted to veterans, in this example, the total exemption will increase to \$840.

8. Do any of these provisions effect the state reimbursement?

As Clauses 22I and 22J are local options that must be accepted by a city or town to apply in that municipality, there is no additional state reimbursement for the cost of the additional exemptions.

Conversely, the veteran exemptions granted pursuant to the new provisions in G.L. c. 60A, § 1 will be fully reimbursed by the Commonwealth.

**SAMPLE ACCEPTANCE VOTES
(Consult with municipal counsel)**

ADJUSTED EXEMPTION AMOUNT CLAUSE 22I

VOTED: That the city/town accept General Laws Chapter 59, Section 5, Clause 22I, which authorizes an annual increase in the amount of the exemption granted under General Laws Chapter 59, Section 5, Clause 22, Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F by the percentage increase in the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) for the previous year as determined by the Commissioner of Revenue, to be effective for applicable exemptions granted for any fiscal year beginning on or after July 1, _____.

OPTIONAL ADDITIONAL VETERAN EXEMPTION CLAUSE 22J

VOTED: That the city/town accept General Laws Chapter 59, Section 5, Clause 22J, which authorizes an annual increase in the amount of the exemption granted under General Laws Chapter 59, Section 5, Clause 22, Clause 22A, Clause 22B, Clause 22C, Clause 22E and Clause 22F by **[insert percentage increase up to 100% e.g., 50%, 70%, 100%]** of the personal exemption amount, subject to the conditions in Clause 22J, to be effective for applicable exemptions granted for any fiscal year beginning on or after July 1, _____.



**Town of Arlington
Office of the Town Manager**

**James Feeney
Town Manager**

**730 Massachusetts Avenue
Arlington, MA 02476-4908
Phone (781) 316-3010
Website: www.arlingtonma.gov**

To: Members of the Select Board

Cc: Dana Mann, Director of Assessments
Alex Magee, Deputy Town Manager/Finance Director
Philip McGovern, Director of Veterans Services

From: James Feeney, Town Manager

Date: March 13, 2025

RE: Annual Town Meeting Warrant Article 20- Acceptance of Legislation/ Clause 22I

Please receive this memorandum in support of the proposed Acceptance of Legislation presented in Article 20, which seeks to adopt Clause 22I of M.G.L. c. 59 §5. For background, Clause 22I is a new veteran property tax exemption clause incorporated into the general laws via Chapter 178 of the Acts of 2024, which is more commonly known as the “HERO” Act. The “HERO” Act provided two new local options to increase veteran tax exemptions, including Clauses 22I and 22J.

The Warrant Article drafted for consideration only contemplates adoption of Clause 22I. Clause 22J would provide for an additional exemption up to 100% of the tax exemption already granted to veterans under Clauses 22, 22A, 22B, 22C, 22E and 22F. While meritorious on its face, Clause 22J would not be able to operate contemporaneously in a year when Arlington is already using G.L. c.59, § 5C½, which provides for additional exemption amounts for *all* recipients. For background, Arlington’s Town Meeting previously approved increases of statutory exemption amounts at various times in history; the most recent vote via Home Rule Legislation in 2006

brought the total increase to 30% of the statutory amounts for all general exemptions, including veteran exemptions. The resulting increases have been applied since approval was formalized. In other words, for veterans to reap additional benefit from 22J, Arlington would need to forego our previously authorized annual 30% increases to the statutory exemptions for other qualifying residents who are surviving spouses or seniors 70+ (3), seniors 65+ (43), or legally blind (33). Due to the negative benefit for these Arlington residents (who could also be veterans), and since the veteran exemption is already increased by 30% annually, Clause 22J is not recommended for adoption at this time.

Instead, Clause 22I, if accepted, would operate independently to provide for an annual increase to veteran exemption amounts by a cost-of-living-adjustment determined by the Department of Revenue (DOR) based on the Consumer Price Index (CPI). In effect, this is similar to the local option already adopted by Town Meeting via Article 25 in 2017 that annually adjusts senior citizen tax exemption amounts commensurate with a state determined CPI.

If ultimately adopted and implemented, Clause 22I would adjust annually the amount granted for clauses 22, 22A, 22B, 22C, 22E & 22F by the CPI. At present, Arlington only has recipients of Clause 22 and Clause 22E exemptions. The proposed CPI adjustment would be applied to the base amount established by the Commonwealth. Again, Arlington already adjusts the award amount upward by 30%. Using the CPI provided for FY25, the following table represents the potential financial impact of this Warrant Article using our FY24 exemption data for illustration purposes.

Clause	State Amt.	Clause 22I CPI Increase (3.4%)	30% Increase	Total Amt Granted	# of FY24 Exemptions	Cost of Clause 22I
22	\$400	\$13.60	\$120	\$533.60	110	\$1,496
22E	\$1000	\$34.00	\$300	\$3,335.00	30	\$1,020

Total: \$2,516

PARKING FUND BUDGET

REVENUES	FY24 BUDGET	FY24 ACTUAL	FY25 BUDGET	FY25 YTD	FY26 BUDGET
Single Space Meters	\$ 259,798	\$ 202,949	\$ 179,599	\$ 113,794	\$ 182,654
Multi-Space Meters	\$ 139,985	\$ 70,325	\$ 62,712	\$ 41,358	\$ 63,292
Charging Station	\$ 5,317	\$ 27,366	\$ 20,464	\$ 25,437	\$ 24,629
Pay by Phone	N/A	\$ 173,103	\$ 123,556	\$ 140,324	\$ 155,793
Interest	\$ 11,824	\$ 63,951	\$ 35,704	\$ 41,812	\$ 31,976
TOTAL	\$ 416,924.00	\$ 537,693.96	\$ 422,034.20	\$ 362,725.00	\$ 458,344.04

EXPENDITURES	FY24 BUDGET	FY24 ACTUAL	FY25 BUDGET	FY25 YTD	FY26 BUDGET
MAINTENANCE AND OPERATION					
IPS, CC Fee, Coin Collection	\$ 163,100	\$ 225,721	\$ 128,500	\$ 101,992	\$ 135,000
Charging Stations	\$ -	-	\$ 10,000	\$ -	\$ 10,000
Electricity at Charging Stations	\$ -	-	\$ 4,800	\$ -	\$ 6,800
Multi-Space Meter Kiosk Replacement	-	-	-	\$ -	\$ 61,260
Lease Payments	\$ 6,000	\$ 6,000	\$ 6,000	\$ 4,000	\$ 6,000
Parking Enforcement/Admin	\$ 111,325	\$ 111,325	\$ 114,148	\$ 114,148	\$ 117,454
Meter Upgrade			\$ -	\$ -	\$ -
PCO Replacement Vehicle			\$ -	\$ -	\$ -
Maintenance and Operation Subtotal	\$ 280,425	\$ 343,046	\$ 263,448	\$ 220,140	\$ 336,514
PARKING BENEFIT DISTRICT					
Russell Common Lot	\$ -	-	\$ 65,000	\$ -	\$ 200,000
Trash Management	\$ 32,500	-	\$ -	\$ -	\$ -
Seasonal Plantings/Waterings	\$ 36,740	\$ 35,200	\$ 36,260	\$ 22,705	\$ 47,500
Landscape Maintenance/Weeding		-		\$ -	\$ 20,000
Power Washing	\$ 17,959	\$ 13,574	\$ -	\$ -	\$ 20,000
Electric Upgrades	\$ -	-	\$ 25,000	\$ -	\$ 50,000
250th Decorations	\$ -	-	\$ 27,500	\$ -	\$ -
Decorative Lighting	\$ 49,300	\$ 2,530	\$ 75,000	\$ -	\$ 30,000
Streetscape Improvements	\$ -	-	\$ 40,000	\$ 3,500	\$ 15,000
Encumbrances	\$ -	-	\$ -	\$ 111,314	\$ -
Parking Benefit District Subtotal	\$ 136,499	\$ 51,304	\$ 268,760	\$ 137,519	\$ 382,500
TOTAL	\$ 416,924	\$ 394,350	\$ 532,208	\$ 357,659	\$ 719,014

	FY24 BUDGET	FY24 ACTUAL	FY25 BUDGET	FY25 YTD	FY26 BUDGET
REVENUES	\$ 416,924	\$ 537,694	\$ 422,034	\$ 362,725	\$ 458,344
EXPENDITURES	\$ 416,924	\$ 394,350	\$ 532,208	\$ 357,659	\$ 719,014
Surplus (Deficit)	\$ -	-	\$ (110,174)	\$ 5,066	\$ (260,670)
Beginning FY Fund Balance	\$ 623,422	\$ 623,422	\$ 803,267	-	\$ 693,093
Ending FY Fund Balance	\$ 623,422	\$ 803,267	\$ 693,093	-	\$ 432,423

CARRY FORWARD SOY 7.1.24 \$ 803,267

Updated March 11, 2025

*Approved unanimously by Parking Benefit District Committee at 3/11/2025 Meeting



Town of Arlington, Massachusetts

Articles for Review:

Summary:

Article 6 Bylaw Amendment / Town Meeting Procedural Rules

Article 8 Bylaw Amendment / Canine Control

Article 12 Bylaw Amendment / Expanding Town Committee Membership Eligibility to all Residents

Article 13 Home Rule Legislation / Arlington Redevelopment Board as the Town of Arlington Board of Survey

Article 14 Home Rule Legislation / Real Estate Transfer

Article 15 Home Rule Legislation / To Amend the Senior Citizen Property Tax Exemption

Article 17 Home Rule Legislation / Rodenticide

Article 18 Home Rule Legislation / Ranked Choice Voting

Article 19 Home Rule Legislation / William Pilleri

ATTACHMENTS:

	Type	File Name	Description
▢	Reference Material	3.17.25_-_Draft_Votes_and_Comments.pdf	Final Votes 3.17



**Town of Arlington
Legal Department**

Michael C. Cunningham
Town Counsel

50 Pleasant Street
Arlington, MA 02476
Phone: 781.316.3150
Fax: 781.316.3159
E-mail:
mcunningham@town.arlington.ma.us
Website: www.arlingtonma.gov

To: Arlington Select Board

Cc: James Feeney, Town Manager

From: Michael C. Cunningham, Town Counsel
Jaclyn Munson, Deputy Town Counsel

Date: March 15, 2025

Re: Draft Vote and Comment/Annual Town Meeting Warrant Articles: 6, 8, 12, 13, 14, 15, 17, 18, and 19

The purpose of this memorandum is to provide the Select Board with a draft vote and comment for Annual Town Meeting Warrant Articles 6, 8, 12, 13, 14, 15¹, 17, 18, and 19 considered before this Board at its hearing on March 10, 2025.

ARTICLE 6 BYLAW AMENDMENT / TOWN MEETING PROCEDURAL RULES

VOTED: that the Town does and hereby amends Title I, Article 1, Section 10(C) of the Town's Bylaws, or take any action related thereto, so that the new provision of Title I reads:

C. Votes

"All votes, unless otherwise provided by law, shall may be taken in the first instance by a "yes" and "no" or "yea" and "nay" voice vote, or by an electronic tally at the option discretion of the Moderator. If the Moderator is in doubt as to the voice vote, or if five voters immediately question a voice vote, the Moderator shall call for a standing vote or an electronic tally, at the

option of the Moderator. In an instance where the difference between the yes and no votes according to an electronic tally is less than 6 votes, then the individual votes shall be displayed.

On all questions submitted for the consideration of the Town Meeting, when requested by thirty or more Town Meeting Members present at the meeting, there shall be a roll call vote, either by voice or by an electronic vote, at the option of the Moderator. If an electronic tally was previously taken on the question, the vote of each Town Meeting Member who voted electronically in the first instance shall be displayed and recorded. All roll call votes, oral or electronic, shall be recorded so as to indicate the individual vote of each Town Meeting Member who shall have voted. Said record of roll call votes, oral or electronic, shall be available as recorded at the Town Clerk's Office.

Whenever a vote of two-thirds of the Town Meeting Members present and voting is required on any matter, the Moderator may declare a motion passed by a voice vote or electronic tally of at least two-thirds in favor. A standing vote or further electronic tally need not be taken unless required by law or these Bylaws. The Town Clerk shall record the Moderator's declaration that the motion passed by a two-thirds vote in favor.

The individual votes shall always be displayed if the margin of success of the prevailing side, calculated by subtracting the smallest number needed to prevail from the actual number of prevailing votes, is less than three.

(5-0)

COMMENT: The Board voted unanimously for favorable action on this Article. The Board heard from the Town Moderator on the purpose of the warrant article. The Moderator that the Town Meeting Procedures Committee had recommended this change to streamline the voting process and make it both easier and more accurate for the Moderator to determine votes. The Board and Moderator discussed that there are procedures in place, such as electronic voting, to supplement voice votes if the latter is difficult to discern. It was noted that the Moderator retains the right to call for a “yes” and “no” vote or a “yea” and “nay” vote. The decision on which to call will be at the Moderator’s discretion if this bylaw amendment is adopted.

ARTICLE 8

BYLAW AMENDMENT / CANINE CONTROL

VOTED: To see if the Town will vote to amend Title VIII, Article 2 of the Town Bylaws to make changes as required under Chapter 213 of the Acts of 2024 (“Ollie’s Law”) and for the Bylaw’s clarity and effectiveness; or take any action related thereto, so that the new provision of Title VIII reads:

ARTICLE 2 CANINE CONTROL

Section 1. Dogs (ART. 13, ATM – 4/29/13)

A. Nuisance and Dangerous Dogs

1. *Definitions.*

a. *“Nuisance dog” is a dog that:*

(i) *by excessive barking or other disturbance is a source of annoyance to a sick person residing in the vicinity;*

(ii) *by excessive barking, causing damage or other interference, behaves in a manner that a reasonable person would find disruptive to quiet and peaceful enjoyment; or*

(iii) *has threatened or attacked livestock, a domestic animal, or a person in a manner not grossly disproportionate under all the circumstances.*

b. *“Dangerous dog” is a dog that either:*

(i) *without justification, attacks a person or domestic animal causing injury or death; or*

(ii) *behaves in a manner that a reasonable person would believe poses an unjustified imminent threat of physical injury or death to a person or to a domestic or owned animal.*

c. *No dog shall be deemed dangerous:*

(i) *solely based upon growling, barking, or both;*

(ii) *based upon the breed of the dog; or*

(iii) *if, at the time of the incident in question, the dog was reacting to another animal or person in a manner not grossly disproportionate to any of the following circumstances:*

(a) *the dog was protecting or defending itself, its offspring, another domestic animal, or a person from attack or assault;*

(b) *the person attacked or threatened by the dog was committing a crime upon the person or property of the owner or keeper of the dog;*

(c) *the person attacked or threatened was engaged in teasing, tormenting, battering, assaulting, injuring, or otherwise provoking the dog; or*

(d) at the time of the attack or threat, the person or animal attacked or threatened had breached an enclosure or structure, including but not limited to a gated and fenced-in area, in which the dog was kept apart from the public, without being authorized to do so by the owner of the premises.

A child under age 7 shall be rebuttably presumed not to have been committing a crime, provoking the dog, or trespassing at the time of the attack or threat.

2. Complaint. Any person may file a written complaint with the Select Board that a dog kept in the Town is a nuisance dog or a dangerous dog.

3. Disposition. The Select Board shall investigate or cause to be investigated the complaint, including an examination under oath of the complainant at a public hearing. Based on credible evidence and testimony presented at the public hearing, the Select Board or its designee ("Hearing Authority") shall take the following action:

- a. Nuisance dog. If the dog is complained of as a nuisance dog, the Hearing Authority shall either (a) deem the dog a nuisance dog; or (b) dismiss the complaint.
- b. Dangerous dog. If the dog is complained of as a dangerous dog, the Hearing Authority shall either (a) deem the dog a dangerous dog; (b) deem the dog a nuisance dog; or (c) dismiss the complaint.
- c. Report to Town Clerk. The Hearing Authority shall report any finding that a dog is a nuisance dog or a dangerous dog to the Town Clerk.
- d. Order valid throughout Commonwealth. Unless later overturned on appeal, any order of the Hearing Authority shall be valid throughout the Commonwealth.

4. Remedies.

- a. Nuisance dog. If the Hearing Authority has deemed the dog a nuisance dog, it may order the owner or keeper of the dog to take remedial action to ameliorate the cause of the nuisance behavior.
- b. Dangerous dog. If the Hearing Authority has deemed the dog a dangerous dog, it may order one or more of the following remedies, provided, however that no dog that has been deemed dangerous shall be ordered removed from the Town:

- (i) *that the dog be humanely restrained, but no order shall require a dog **deemed dangerous** to be chained, **or** tethered **or otherwise tied** to an inanimate object such as a tree, post, or building;*
- (ii) *that the dog be confined to the premises of the owner or keeper, meaning securely confined indoors or confined outdoors in a securely enclosed pen or dog run area that has a secure roof, has either a floor secured to all sides or is embedded into the ground for at least two feet, and provides the dog with proper shelter from the elements;*
- (iii) *when removed from the premises of the owner or keeper, the dog be securely and humanely muzzled and restrained with a tethering device with a maximum length of three feet and a minimum tensile strength of three hundred pounds;*
- (iv) *that the owner or keeper provide (i) proof of insurance of at least \$100,000 insuring the owner or keeper against any claim, loss, damage, or injury to persons, domestic animals, or property resulting from the intentional or unintentional acts of the dog; or (ii) proof that reasonable efforts were made to obtain such insurance;*
- (v) *that the owner or keeper provide to the Town Clerk, the Animal Control Officer, or other entity as directed with identifying information for the dog including but not limited to photographs, videos, veterinary records, tattooing, microchip implantations, or a combination of these;*
- (vi) *that the dog be altered so as not to be reproductively intact, unless the owner or keeper provides evidence of a veterinary opinion that the dog is medically unfit for such alteration; or*
- (vii) *that the dog be humanely euthanized.*

~~e. Restrictions following dangerousness finding.~~

- ~~(i) No dog that has been deemed dangerous shall be ordered removed from the Town.~~
- ~~(ii) No person over the age of 17 who has actual knowledge that a dog has been deemed dangerous under this Bylaw shall permit a child under the age of 17 to own, possess, or have care or custody of that dog.~~

~~(iii) No person shall transfer ownership or possession of a dog that been deemed dangerous under this Bylaw or offer such dog for sale or breeding without informing the recipient of the dog of the finding of dangerousness.~~

~~(iv) If, subsequent to a determination by a Hearing Authority or reviewing court that a dog is dangerous, such dog wounds a person or worries, wounds, or kills any livestock or fowl, the owner or keeper of the dog shall be liable in tort for treble damages.~~

5. Appeal. Within ten days of the issuance of any order under this section, the owner or keeper of the affected dog may bring a petition for judicial review in the district court for the judicial district in which the kennel is located, which shall consider the petition in accordance with Section 157 of Chapter 140 of the General Laws.

6. Impoundment Pending Appeal.

a. Order of impoundment. Pending an appeal, the Hearing Authority may petition the district court ~~for~~ to request an order to impound the dog at a facility the Town uses to shelter animals for a dog complained of as being a dangerous dog. A municipality shall not incur liability for failure to request impoundment of a dog under this subsection. ~~shelter facility used by the Town. Failure to request such impoundment will not result in liability for the Town, the Hearing Authority, or any of its agents. The district court shall consider this petition in accordance with Section 157 of Chapter 140 of the General Laws.~~

b. Costs of impoundment.

(i) If the district court affirms ~~the Hearing Authority's~~ an order of euthanasia, the owner or keeper shall reimburse the Town for all reasonable costs incurred for the housing and care of the dog during the period of impoundment and appeals process, if any. The Town ~~may~~ shall recover ~~unpaid charges~~ costs owed to it under this section by any of the following methods:

(a) a lien on any real property owned by the owner or keeper of the dog; (b) an additional, earmarked charge on the vehicle excise of the owner or keeper of the dog; or (c) a direct bill sent to the owner or keeper of the dog.

(ii) If the court overturns an order of euthanasia, the Town shall pay all reasonable costs incurred for the housing and care of the dog during any period of impoundment. If the district court reverses

the Hearing Authority's order of euthanasia, the Town shall pay all reasonable costs incurred for the housing and care of the dog during the period of impoundment.

7. Penalties.

- a. If an owner or keeper of a dog is found in violation of an order issued under this section, the dog shall be subject to seizure and impoundment by a law enforcement or animal control officer (the "Seizing Authority").
- b. If the keeper of the dog is in violation, all reasonable effort shall be made by the Seizing Authority to notify the owner of the dog of such seizure. Upon receipt of such notice, the owner may file a petition with the Select Board, within 7 days, for the return of the dog to the owner. The owner or keeper shall be ordered to immediately surrender to the Select Board the license and tags in the person's possession, if any, and the owner or keeper shall be prohibited from licensing a dog within the commonwealth for 5 years.
- c. If the Select Board determines that a dog is dangerous or a nuisance or that a dog owner or keeper has violated an order issued under this section, it shall report such violations to the issuing licensing authority within 30 days.

- a. ~~Seizure/impoundment. If an owner or a keeper of a dog is found in violation of an order issued under this section, the dog shall be subject to seizure and impoundment by a law enforcement or animal control officer. If it is the keeper in violation, all reasonable efforts shall be made to notify the owner of such seizure and impoundment and the owner may, within seven days, petition the Hearing Authority for return of the dog.~~
- b. ~~Capture/euthanasia. A dog found to be in violation of a Hearing Authority order or district court issued under this section may be captured or detained by a police officer, animal control officer, or constable. In the case of a threat to public safety or of the dog is living in a wild state, the police officer, animal control officer, or constable may euthanize it humanely.~~
- c. ~~Fines/imprisonment. A dog owner or keeper who fails to comply with an order of a Hearing Authority or the district court issued under this section shall be punished by a fine of not more than \$500 or imprisonment in a jail or house of correction for not more than 60 days, or both for a first offense or by a fine of not more than \$1,000 or imprisonment in a jail or house of correction for not more than 90 days, or both for a second or subsequent offense.~~

~~d. — Future licensure. Any owner or keeper who fails to comply with an order of a Hearing Authority or the district court issued under this section shall be prohibited from licensing a dog within the Commonwealth for five years.~~

B. Chaining or Tethering Dogs and Humane Conditions
(ART. 10, ATM – 04/23/18)

The following shall be done in accordance with M.G.L. ch. 140, s. 174E:

1. ~~No person owning or keeping a dog shall chain or tether a dog to a stationary object including, but not limited to, a structure, dog house, pole or tree for longer than 5 hours in a 24-hour period or outside from 10:00 p.m. to 6:00 a.m. unless the tethering is not for more than 15 minutes and the dog is not left unattended by the owner, guardian or keeper.. A tethering so employed shall not allow the dog to leave the owner's, guardian's or keeper's property. The tether shall be designed for dogs and no logging chains or other lines or devices not designed for tethering dogs shall be used.~~

No chain or tether shall weigh more than 1/8 of the dog's body weight. Nothing in this section shall be construed to prohibit a person from walking a dog on a hand-held leash. No dog under the age of 6 months shall be tethered outside for any length of time.

2. *A person owning or keeping a dog may confine such dog outside, subject to the restrictions in this section and as described in M.G.L. ch. 140, s. 174E(b), through the use of any of the following methods:*

a. inside a pen or secure enclosure, if the following conditions are met:

- (i) the pen or secure enclosure shall have adequate space for exercise with a dimension of at least 100 square feet; provided, however, that commercial dog kennels with pens intended for the temporary boarding of dogs shall be exempt from this requirement;*
- (ii) the pen or secure enclosure is constructed with chain link or other similar material as determined by the Building Inspector, with all 4 sides enclosed; and*
- (iii) the minimum height of the fence shall be adequate to successfully confine the dog;*

b. a fully fenced, electronically fenced or otherwise securely enclosed yard, wherein a dog has the ability to run but is unable to leave the enclosed yard; or

- c. *a trolley system or a tether attached to a pulley in a cable run, if the following conditions are met:*
- (i) *only 1 dog shall be tethered to each cable run;*
 - (ii) *the tether shall be attached to a properly fitting collar or harness worn by the dog, with enough room between the collar and the dog's throat through which 2 adult fingers may fit; provided, however, that a choke collar and a pinch collar shall not be used to tether a dog to a cable run;*
 - (iii) *there shall be a swivel on at least 1 end of the tether to minimize tangling of the tether;*
 - (iv) *the tether and cable run must each be at least 10 feet in length. The cable must be mounted at least 4 feet but not more than 7 feet above ground level; and*
 - (v) *the length of the tether from the cable run to the dog's collar or harness shall allow continuous access to clean water and appropriate shelter at all times as described herein; provided, however, that a trolley system or tether shall be of appropriate configuration to confine the dog to the owner's, guardian's or keeper's property, to prevent the trolley system or tether from extending over an object to an edge that could result in injury to or strangulation of the dog and to prevent the trolley system or tether from becoming tangled with other object or animals.*

3. *A person owning or keeping a dog confined outside in accordance with M.G.L. ch. 140, s. 174E(b) ~~this section~~ shall provide the dog with access to clean water and appropriate dog shelter. The dog shelter shall allow the dog to remain dry and protected from the elements and shall be fully enclosed on at least 3 sides, roofed and have a solid floor.*

The entrance to the shelter shall be flexible to allow the dog's entry and exit, and sturdy enough to block entry of weather elements. The shelter shall contain clean bedding and shall be small enough to retain the dog's body heat and large enough to allow the dog to stand, lie down and turn comfortably. The enclosure shall be structurally sound and in good repair. Suitable drainage shall be provided so that water, ice or waste is not standing in or around the shelter.

4. *A person shall not leave a dog outside when a weather advisory, warning or watch is issued by a local, state or federal authority or when outside environmental conditions including, but not limited to, extreme heat, cold, wind, rain, snow or hail pose an adverse risk to the health or safety of the dog*

based on the dog's breed, age or physical condition, unless the tethering is for not more than 15 minutes. ~~No person owning or keeping a dog shall leave a dog chained or tethered outside for longer than 5 hours in a 24-hour period or outside from 10:00 p.m. to 6:00 a.m. unless the tethering is not for more than 15 minutes and the dog is not left unattended by the owner, guardian or keeper.~~

5. An exception to a restriction on outdoor confinement under this section that is reasonably necessary for the safety of a dog shall be made for a dog that is: (i) present in a camping or recreational area pursuant to the policy of the camping or recreational area; or (ii) actively engaged in conduct that is directly related to the business of shepherding or herding cattle or other livestock or engaged in conduct that is directly related to the business of cultivating agricultural products. ~~Exceptions to the above restrictions on outdoor confinement shall be made for dogs actively engaged in conduct directly related to the business of shepherding or herding cattle or other livestock or engaged in conduct that is directly related to the business of cultivating agricultural products, if the restraint is reasonably necessary for the safety of the dog.~~
6. No person owning or keeping a dog shall subject the dog to cruel conditions or inhumane chaining or tethering at any time. For the purposes of this subsection, "cruel conditions and inhumane chaining or tethering" shall include, but not be limited to, the following conditions:
 - a. filthy and dirty confinement conditions including, but not limited to, exposure to excessive animal waste, garbage, dirty water, noxious odors, dangerous objects that could injure or kill a dog upon contact or other circumstances that could cause harm to a dog's physical or emotional health;
 - b. taunting, prodding, hitting, harassing, threatening or otherwise harming a tethered or confined dog; and
 - c. subjecting a dog to dangerous conditions, including attacks by other animals.
 - d. ~~leaving a dog outside when a weather advisory, warning or watch is issued by a local, state or federal authority or when outside environmental conditions including, but not limited to, extreme heat cold, wind, rain, snow or hail pose and adverse risk to the health or safety of the dog, unless tether is for not more than 15 minutes; and~~
7. No person shall confine an animal in a motor vehicle in a manner that could reasonably be expected to threaten the health of the animal due to exposure to extreme heat or cold.

- a. *After making reasonable efforts to locate a motor vehicles owner, an animal control officer, law enforcement officer or fire fighter may enter a motor vehicle by any reasonable means to protect the health and safety of an animal. Such personnel shall leave written notice is a secure and conspicuous location on or in the motor vehicle bearing the officer's or fire fighter's name and title and the address of the location where the animal may be retrieved. The owner may retrieve the animal only after pavement of all charges that have accrued for the maintenance, care, medical treatment and impoundment of the animal.*
- b. *An animal control officer, law enforcement officer or fire fighter who removes or otherwise retrieves an animal from a motor vehicle under subsection (a), and the Town shall be immune from criminal or civil liability that might otherwise result from removal.*

8. **Penalties.**

*a. A person who violates this ~~sections 1 through 6 above shall~~ **Section(B)(1)-(6)**, for a first offense, be issued a written warning or punished by a fine \$50, for a second offense, be punished by a fine of \$200 and for a third or subsequent offense, be punished by a fine of \$3500, and be subject to impoundment of the dog in a local shelter at the owner's or guardian's expense pending compliance with this section, or loss of ownership of the dog.*

*b. A person who violates **Section B(7)** ~~section "7" above~~ **shall be a civil infraction punishable by a fine of not more than \$150 for a first offense, by a fine of not more than \$300 for a second offense and by a fine of not more than \$500 for a third or subsequent offense.** ~~shall, for the first offense be punished by a fine of \$150, for a second offense, be punished by a fine of \$300, and for a third and each subsequent offense, by a fine of \$3500, and may be subject to prosecution under G.L. c. 272 section 77.~~*

*c. **Nothing in this Section(B) shall preclude prosecution under section 77 of chapter 272.***

Section 2. Leashing of Dogs

(ART. 10, ATM – 04/28/03)

(ART. 27, ATM – 05/05/04)

(ART. 36, ATM – 05/12/10)

(ART. 19, ATM – 04/27/11)

(ART. 13, ATM – 04/29/13)

A. Leash Required

No person owning or keeping a dog in the Town of Arlington shall permit such dog to be at large in the Town of Arlington elsewhere than on the premises of the

owner or keeper, except if it be on the premises of another person with the knowledge and permission of such other person.

Such owner or keeper of a dog in the Town of Arlington, which is not on the premises of the owner or upon the premises of another person with the knowledge and permission of such person shall restrain such dog by a chain or leash ~~not exceeding six feet in length~~ in accordance with M.G.L. ch. 140, s. 174E.

~~In any prosecution hereunder, the presence of such dog at large upon premises other than the premises of the owner or keeper of such dog shall be prima facie evidence that such knowledge and permission was not had.~~

This ~~provision~~ Section shall not apply, ~~however,~~ in any area designated by the Board of Parks and Recreation Commissioners as a "Dog Park", "Dog Run" or "Dog Exercise Area".

In areas so designated, dogs are not required to be restrained by a leash provided the owner or keeper of such dog is present and attentive to the dog. The Board of Parks and Recreation Commissioners may designate a dog park, dog run, or dog exercise area only if same is enclosed by appropriate fencing to preclude the escape of any dog into any other area of the park or playground not so designated as a dog park, dog run, or dog exercise area.

B. Enforcement

Any dog found to be at large in violation of this By-Law shall be caught and confined by the dog officer who shall notify forthwith the licensed owner or keeper of said dog giving the owner or keeper a period of seven days within which to recover the dog.

Return of the dog to the licensed owner or keeper shall be dependent on admission of ownership or the keeping of the dog and the assumption of responsibility by the licensed owner or keeper.

The dog officer shall enter and prosecute a complaint against the owner or keeper of any dog taken into the officers' custody under this section, as provided for in this By-Law.

A dog officer having custody of a dog confined under this By-Law shall be allowed the sum of forty-dollars per day for each day of confinement for the care of such dog, payable by the owner or keeper thereof.

C. Fines (ART. 40, ATM – 05/08/91 (ART. 17, ATM – 04/26/06) (ART. 19, ATM – 04/27/11)

Violations of Sections 2 of this Article shall be punishable as

follows:

<i>First offense</i>	<i>By a fine of</i> \$ 75.00
<i>Second offense</i>	<i>By a fine of</i> \$100.00
<i>Third offense</i>	<i>By a fine of</i> \$150.00
<i>Fourth and each subsequent offense</i>	<i>By a fine of</i> \$200.00

The Park and Recreation Commission shall provide for a hearing process to consider community input regarding the creation, placement and use of dog parks, dog runs or dog exercise areas. The Commission shall adopt rules and regulations concerning these hearings subject to the approval of the Town Manager.

- D.** *Notwithstanding the foregoing, from park opening time until 9 am, a maximum of two dogs per handler may be off-leash, under effective owner control, in all lands under control of the Parks and Recreation Commission except:*

- 1. those lands directly contiguous to school properties;*
- 2. within 15 feet of playground equipment;*
- 3. by specific exclusion of the Parks and Recreation Commission.*

Section 3. No Fouling of Sidewalks, Etc.

- A. *Duty to Dispose*** *It shall be the duty of each person who owns, possesses or controls a dog to remove and dispose of any feces left by their dog on any sidewalk, street or other public area in the Town. It shall further be the duty of each person who owns, possesses or controls a dog to remove and dispose of any feces left by their dog on any private property neither owned nor occupied by said person.*

- B. *Duty to Possess Means of Removal*** *No person who owns, possesses or controls such dog shall appear with such dog on any sidewalk, street, park or other public area without the means of removal of any feces left by such dog.*

Furthermore, no person who owns, possesses or controls such dog shall appear with such dog on any private property neither owned nor occupied by said person without the means of removal of any feces left by said dog.

- C. *Method of Removal and Disposal*** *For the purposes of this regulation, the means of removal shall be any tool, implement, or other device carried for the purpose of picking up and containing such feces, unexposed to said person or the public.*

Disposal shall be accomplished by transporting such feces to a place suitable and regularly reserved for the disposal of canine feces, or as otherwise designated as appropriate by the Board of Health.

- D. *Fines (ART. 40, ATM – 05/08/91)***

Violation of Section 3 of this Article shall be punishable as follows:

<i>First offense</i>	<i>By a fine of \$ 75.00</i>
<i>Second offense</i>	<i>By a fine of \$100.00</i>
<i>Third and each subsequent offense</i>	<i>By a fine of \$150.00</i>

E. Exemption *This regulation shall not apply to a dog accompanying any handicapped person who, by reason of their handicap, is physically unable to comply with the requirements of this By-Law, or to any individual who utilizes a guide dog.*

F. Severability *The provisions of this section are severable; and if any of the provisions of this section shall be held unconstitutional or otherwise invalid by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.*

Section 4. Licensing

(ART. 25, ATM – 04/27/88)
(ART. 23, ATM – 05/04/2009)
(ART. 13, ATM – 04/29/13)
(ART. 8, ATM – 4/26/21)

A. Licensing Requirement.

1. *License required. The owner or keeper of any dog over the age of six months kept in the Town of Arlington shall obtain a license for the dog from the Town Clerk.*

2. *Annual renewal. Licenses issued under this section shall be renewed on an annual basis in accordance with procedures to be determined by the Town Clerk. Licenses are issued for the calendar year and must be renewed every year on or before January 1st, although there is a grace period established in sub-section F before fines are assessed.*

3. *Transfer. Within 30 days of moving into the Town, the owner or keeper of a dog must apply to the Town Clerk for a license.*

B. Conditions.

1. *Rabies vaccination. The Town Clerk shall not grant a license unless (i) the license applicant provides a veterinarian's certification or notarized letter that the dog has been vaccinated against rabies; or (ii) the dog is exempted from the vaccination requirement by the Town of Arlington Board of Health or the Town Clerk in accordance with Section 145B of Chapter 140 of the General Laws.*

2. *Control.* Any license granted under this section is granted on the condition that the licensed dog shall be controlled and restrained from killing, chasing, or harassing livestock or fowl.
3. *Previous conviction of animal cruelty.* Town Clerk shall not grant a license under this section or Section 5, below, to an applicant who has been convicted of one or more of the offenses set forth in Section 137D of Chapter 140 of the General Laws within the preceding five years.

C. License Forms.

1. *Symptoms of rabies.* Every license issued to the owner of a dog shall have a description of the symptoms of rabies printed thereon, as supplied by the state Department of Public Health.
2. *Description of dog.* The owner of a dog to be licensed under this section may add to the license application form up to ten descriptive words indicating the dog's color, breed, weight, or any special markings.

D. Tags.

1. *Issuance.* Along with the license, the Town Clerk shall issue a durable tag inscribed with the license number, designation of the Town of Arlington, and the year of issue.
2. *Affixed to dog.* The owner or keeper of the licensed dog shall keep a collar or harness of leather or other suitable material affixed around the dog's neck or body to which the tag shall be securely attached.
3. *Lost tags.* If the tag is lost or destroyed, the owner or keeper shall immediately secure a substitute tag from the Town Clerk for a fee to be determined by the Town Clerk.

E. Exemptions. The requirements of this section shall not apply to a dog housed in a research institution.

~~(1) to a person to whom the applicable kennel license has been issued under this Bylaw and remains in force; or (2) to a dog housed in a research institution.~~

F. Fees. (ART. 10, ATM – 04/23/18)

1. *Annual license fees.* The annual license fees are as follows:

- a. female: \$20
- b. spayed female: \$15
- c. male: \$20
- d. neutered male: \$15

To be charged the lower fee for licensing a spayed or neutered dog, the license applicant must provide proof of spay or neuter in the form of either: (a) a certificate from the veterinarian who spayed or neutered the dog; (b) a veterinary bill for performing the procedure; or (c) a statement signed under the penalties of perjury by a veterinarian registered and practicing in the Commonwealth describing the dog and stating that the veterinarian has examined the dog and that the dog appears to be spayed or neutered and therefore incapable of propagation.

2. *Failure to comply; penalties.*

- a. *Penalty for failure to comply with licensing requirements.*

Failure to comply with this section shall be punishable by a fine of \$25 said fine to be assessed by the Town Clerk as part of the fees paid to license a dog.

Under state law, the Animal Control Officer or other police officer may issue a citation for \$50 to any dog owner without a current license for the animal.

Grace period. Failure to satisfy licensing requirements before the first Thursday following 45 business days of the 1st of January each year arises will constitute a failure to comply with licensing requirements.

- b. *Additional late fees.*

Missed year. An additional \$25 fine shall be applied by the Town Clerk where owners fail to register a dog for an entire calendar year, due upon registration the following calendar year, and the license fee for missed year must be paid in full. These late fees shall be in addition to any other applicable penalty provided for in this Bylaw.

Multiple penalties. If the owners fail to register a dog for an entire calendar year and apply for a registration outside of the grace period, the fine will consist of the \$25 late fee and the \$25 skipped year fee, due upon registration in the current year.

3. *Waiver of fees.*

- a. *Service animal.*

No fee shall be charged for the licensure of a service animal as defined by the Americans with Disabilities Act or regulations promulgated thereunder. ~~Late fees apply.~~

b. ~~Owner aged 70 and over.~~

~~If the Town so votes in accordance with Section 139(e) of Chapter 140 of the General Laws, no fee shall be charged for the licensure of a dog owned by a person aged 70 years and older. Late fees apply.~~

4. *No refund of fees. No license fee paid under this section shall be refunded, in whole or in part, due to mistake or due to the subsequent death, loss, spay or neuter, removal from the Town or the Commonwealth, or other disposal of the licensed dog.*

Section 5. Kennels (ART. 13 -04/29/13)

A. Definitions.

1. "Commercial breeder kennel", an establishment, other than a personal kennel, engaged in the business of breeding animals for sale or exchange to wholesalers, brokers or pet shops in return for consideration.

2. "Domestic charitable corporation kennel", a facility operated, owned or maintained by a domestic charitable corporation registered with the department or an animal welfare society or other nonprofit organization incorporated for the purpose of providing for and promoting the welfare, protection and humane treatment of animals, including a veterinary hospital or clinic operated by a licensed veterinarian, which operates consistent with such purposes while providing veterinary treatment and care.

3. "Kennel", a pack or collection of dogs on a single premise, including a commercial boarding or training kennel, commercial breeder kennel, domestic charitable corporation kennel, personal kennel or veterinary kennel.

4. "Licensee", a person who owns and maintains a kennel that has received a kennel license from the relevant licensing authority.

5. "Personal kennel", a pack or collection of more than 4 dogs, 3 months old or older, owned or kept under single ownership, for private personal use; provided, however, that breeding of personally owned dogs may take place for the purpose of improving, exhibiting or showing the breed or for use in legal sporting activity or for other personal reasons; provided further, that selling, trading, bartering or distributing such breeding from a personal kennel shall be to other breeders or individuals by private sale only and not to wholesalers, brokers or pet shops; provided further, that a personal kennel shall not sell, trade, barter

or distribute a dog not bred from its personally-owned dog; and provided further, that dogs temporarily housed at a personal kennel, in conjunction with an animal shelter or rescue registered with the department, may be sold, traded, bartered or distributed if the transfer is not for profit.

6. "Veterinary kennel", a veterinary hospital or clinic that boards dogs for reasons in addition to medical treatment or care; provided, however, that "veterinary kennel" shall not include a hospital or clinic used solely to house dogs that have undergone veterinary treatment or observation or will do so only for the period of time necessary to accomplish that veterinary care.

Personal Kennel (Kennel A)

- ~~1. — License optional (Kennel A-1). An owner or keeper of four or fewer dogs, three months or older, may elect to secure a Personal Kennel License from the Town Clerk rather than licensing each dog under Section 4, above.~~
- ~~2. — A Personal Kennel (Kennel A) is a pack or collection of five or more dogs, three months or older, owned or kept under single ownership for private personal purposes. License mandatory (Kennel A-2). An owner or keeper of five or more dogs, three months or older, must secure a Personal Kennel License from the Town Clerk or other type of kennel license as may be applicable under this section.~~
- ~~3. — Definition. A Personal Kennel is a pack or collection of five or more dogs (or fewer dogs, as in the case of a License-Optional Personal Kennel (Kennel A-1) as defined above at Section 5.A.1), three months or older, owned or kept under single ownership for private personal purposes.~~
- ~~42. — Breeding. Breeding of dogs owned or kept under a Personal Kennel License may be done only for the purpose of improving, exhibiting, or showing the breed; for legal sporting activity; or for other personal reasons.~~
- ~~53. — Sales allowed. Dogs bred at a Personal Kennel may be sold, traded, bartered, or otherwise distributed only by private sale to other breeders or individuals and not to wholesalers, brokers, or pet shops.~~
- ~~64. — Sales prohibited, restricted. No holder of a Personal Kennel License may sell, trade, barter, or otherwise distribute any dog not bred from a personally owned dog, except dogs temporarily housed at a Personal Kennel in conjunction with an animal shelter or rescue program registered with the state Department of Agricultural Resources if the sale, trade, barter, or other distribution is not for profit.~~

B. — Other Types of Kennels.

- ~~1. — Commercial Boarding or Training Kennel (Kennel B) is an establishment used for boarding, holding, day care, overnight stays, or training of animals that are not the property of the owner of the establishment where such services are rendered for a fee or other consideration and generally rendered in the absence of the owner of the animal. A "Commercial Boarding or Training Kennel" shall not include an animal shelter or animal control facility, a pet shop licensed by the state Director of Animal Health, a grooming facility operated solely for the purpose of grooming animals and not for overnight boarding, or an individual who temporarily and not in the normal course of business boards or otherwise cares for animals owned by others.~~
- ~~2. — Commercial Breeder Kennel (Kennel C) is an establishment, other than a Personal Kennel, engaged in the business of breeding animals for sale or exchange to wholesalers, brokers, or pet shops for a fee or other consideration.~~
- ~~3. — Domestic Charitable Corporation Kennel (Kennel D) is a facility operated, owned, or maintained by a domestic charitable corporation registered with the state Department of Agricultural Resources or an animal welfare society or other nonprofit organization incorporated for the purpose of providing for and promoting the welfare, protection, and humane treatment of animals, including a veterinary hospital or clinic operated by or under the supervision of a licensed veterinarian that operates consistent with such purposes while providing veterinary treatment and care.~~
- ~~4. — Veterinary Kennel (Kennel E) is a veterinary hospital or clinic that boards dogs for reasons in addition to medical treatment and care; a "Veterinary Kennel" shall not include a hospital or clinic used solely to house dogs that have undergone veterinary treatment or observation or will do so only for the period of time necessary to accomplish that veterinary case.~~
- ~~5. — Not every type of kennel is permitted under bylaw or zoning bylaw.~~

BC. License Requirements

(a) A person maintaining a kennel shall obtain a kennel license. The Town Clerk shall issue, suspend, renew and revoke kennel licenses as specified in this chapter and any other law. In the case of an applicant for initial licensure or license renewal, the Town Clerk shall deny a kennel license until a kennel has passed inspection by an animal control officer.

(b)(1) The issuing city or town shall determine the period of time for which a kennel license shall be valid, including the date of issuance of the license through the date on which the license expires, inclusive, and shall further determine the fee for the issuance and renewal of a license; provided, however, that in determining the amount of the license fee for a kennel, a dog under the age of 3 months shall not be counted in the number of dogs kept in a kennel. The name and address of the owner of each dog kept in a kennel, if other than the person maintaining the kennel, shall be kept at the kennel and available for inspection by an animal control officer, natural resource officer, deputy natural resource officer, fish and game warden or police officer. A kennel that owns or keeps a dog over the age of 6 months shall comply with section 145B.

(b)(2) A commercial boarding or training kennel shall maintain records of individual dog licenses, as required in section 137, for all dogs in its care.

(c) The licensing authority shall issue a kennel license without charge to a domestic charitable corporation incorporated exclusively for the purpose of protecting animals from cruelty, neglect or abuse or for the relief of suffering.

- ~~1. License required. A person or entity maintaining any type of kennel listed in this section (except a License-Optional Personal Kennel (Kennel A-1) as defined above at Section 5.A.1) shall obtain the appropriate kennel license from the Town Clerk and in accordance with procedures that the Town Clerk shall determine.~~
- ~~2. Renewal. Licenses issued under this section shall be renewed periodically in accordance with a schedule and procedures to be determined by the Town Clerk.~~
- ~~3. License fees, calculation, and exemption. The fees for licenses issued under this section will be established by the Town Clerk. For purposes of calculating kennel license fees, only dogs over the age of six months shall be counted in the total number of dogs kept in a kennel. No kennel license fee shall be charged to a domestic charitable corporation incorporated exclusively for the purpose of protecting animals from cruelty, neglect, abuse, or suffering.~~
- ~~4. Licensing inspection. No kennel license shall be issued or renewed until a kennel has passed inspection by the Town Animal Control Officer or designee.~~
- ~~5. Failure to comply, penalty. Failure to comply with the licensing requirements of this section shall be punishable by a fine of \$50.~~

D. Kennel Operation.

1. *Standards. Kennels must be operated and maintained in a sanitary and humane manner.*

2. *Records.*

a. The name and address of the owner of each dog kept in a kennel, other than dogs belonging to the person maintaining the kennel, shall be kept at the kennel and available for inspection at any time. The kennel license will specify the terms and conditions and may require that the kennel owner or operator is able to produce documentation upon request for each dog showing they are currently licensed in their home community.

b. The Town Clerk, as the licensing authority, shall specify on the license the type of kennel and the maximum number of animals that may be maintained by the licensee. Such number shall be determined by the Town Clerk and the animal control officer following the required inspection. For commercial boarding or training kennels, the number of animals shall be determined following the required inspection and in accordance with regulations promulgated pursuant to section 174G to ensure the property can support the number of animals while ensuring their health and safety

3. *Annual Reporting. Annually, not later than June 1, the Town Clerk shall send to the Department of Agricultural Resources a list of all kennels and their addresses licensed by the Town.*

4. *Penalties. A person who violates this section shall be assessed a fine by the Town Clerk of \$500 for a first offense and a fine of not more than \$1,000 for a second or subsequent offense. The Town Clerk may notify the Animal Control Officer in writing of the violation, and the Animal Control Officer may issue a citation to the owner or operator of the kennel.*

3. ~~*Kennel tags. A holder of a kennel license shall cause each dog kept in its kennel to wear, while in the kennel, a collar or harness of suitable material to which a tag shall be securely attached. This tag shall be inscribed with the number of the kennel license, name of the Town of Arlington, and year of issue. Such tags shall be issued by the Town Clerk in such number as the number of dogs kept in the kennel.*~~

a. *Inspections.*

The Select Board, the Town Manager the Chief of Police, or the Animal Control Officer, or their designee or the agent of any of these ("Inspecting Authority") shall inspect or cause the inspection of every kennel licensed within the Town at least once per year. If a licensee or a

person applying for a license to maintain a kennel refuses to allow an inspector to enter and inspect a kennel, the refusal shall be grounds for denial, suspension or revocation of the license. ~~may inspect any kennel at any time for compliance with the above requirements. The refusal to allow an inspection is grounds for denial, suspension, or revocation of the license.~~

b. Citizen Complaints.

Twenty-five citizens of the Town may file a petition with the Select Board stating that they are aggrieved or annoyed to an extent that constitutes a nuisance by a dog maintained in the Town due to excessive barking or other conditions connected with a kennel. The Select Board or Town Manager shall, not more than 7 days after the filing of such petition, give notice to all interested parties of a public hearing. The hearing shall be held not more than 14 days after the date of the notice. The Select Board or Town Manager, not more than 7 days after the public hearing, investigate or cause to be investigated the subject matter of the petition and shall, by order: (i) suspend the license; (ii) revoke the license; (iii) further regulate the kennel; or (iv) dismiss the petition.

- ~~54. License suspension, revocation. If the Inspecting Authority determines that the kennel is not being maintained in a sanitary or humane manner or if records are not properly kept, the Inspecting Authority may revoke or suspend the kennel license.~~

~~E. Citizen Complaints.~~

- ~~1. Filing. Twenty five citizens of the Town may file a petition with the Select Board stating that they are aggrieved or annoyed to an unreasonable extent due to excessive barking or other conditions associated with a kennel.~~
- ~~2. Hearing. Within seven days of the filing of such petition, the Select Board shall give notice to all interested parties of a public hearing concerning the petition to be held within fourteen days after the date of the notice.~~
- ~~3. Investigation. At the hearing, the Select Board may cause an investigation of the kennel that is the subject of the petition or take such other action as it deems prudent.~~
- ~~4. Disposition. Following the public hearing and any investigation or other proceedings, the Select Board may suspend or revoke the kennel license, may take other such action to regulate the kennel that it deems prudent, or may dismiss the petition. The Select Board shall cause written notice of any order issued under this section to be mailed immediately to the holder of the kennel license and the Town Clerk.~~

~~5. Appeal. Within ten days of the issuance of any order under this paragraph, the holder of the affected license may bring a petition for judicial review in the district court for the judicial district in which the kennel is located, which shall consider the petition in accordance with Section 137C of Chapter 140 of the General Laws.~~

~~6. Penalties. A person maintaining a kennel after revocation or during suspension of a license under this section shall be punished by a fine of \$250 for a first offense, \$500 for a second offense, and \$1000 for a third or subsequent offense."~~

c. Notice.

A written notice under this Section(a) of an order revoking or suspending the license, further regulating the kennel or dismissing the petition shall be mailed immediately to the licensee and to the officer that issued the license. Not more than 10 days after the written notice of the order, the licensee may file a petition in the district court in the judicial district in which the kennel is maintained seeking review of the order. After notice to all parties as the court may consider necessary, the court shall review the action, hear the witnesses and affirm the order unless the court determines that it was made without proper cause or in bad faith, in which case the order shall be reversed. The decision of the court shall be final and conclusive upon the parties.

d. Penalties.

A person maintaining a kennel after the license to maintain a kennel has been revoked or suspended shall be assessed a fine by the licensing authority of not more than \$250 for a first offense, by a fine of not less than \$500 for a second offense and by a fine of not more than \$1,500 for a third or subsequent offense.

Section 6. Non-Criminal Disposition
(ART. 40, ATM – 05/08/91)

Enforcement of Title VIII, Article 2, Sections 2 and 3, of the bylaws may, in the first instance, be pursued through the provisions of Section 21D of Chapter 40 of the General Laws, which provides for a non-criminal disposition.

The enforcing persons shall be any police officer of the Town, any employee of the Board of Health, or any Animal Control Officer of the Town.

(5-0)

COMMENT: The Board voted unanimously for favorable action on this Article after a presentation from Deputy Town Counsel regarding the rationale behind the proposed changes. The Board's Chair, Mr. DeCoursey, requested that the revisions be made to the proposed Bylaw

changes to reinsert struck language regarding the definition of nuisance and dangerous dogs and the appeals process. The Board and Deputy Town Counsel discussed that the changes were made to bring the Town's Bylaw into compliance with a recent law whose goal is to increase protections for dog safety at kennels. Deputy Town Counsel also explained that other non-material changes were made to make the Bylaw easier to read, but that these other changes did not alter the substance of the Bylaw.

**ARTICLE 12 BYLAW AMENDMENT / EXPANDING TOWN
COMMITTEE MEMBERSHIP ELIGIBILITY TO ALL
RESIDENTS**

VOTED: that the Town does and hereby amends Title L Article 1, Section 9(B)(4) of the Town's Bylaws, or take any action related thereto, so that the revised Title L Article 1, Section 9(B)(4) reads:

Section 9. Appointment of Committees (ART. 14, ATM – 05/09/94)

A. Scope This section shall apply to all committees (as hereinafter defined) established by the Town Meeting, or under the bylaws, except to the extent that the vote establishing the same shall specify otherwise, or if the General Laws or Special Acts require a different method. It shall not be applicable to committees established prior to the effective date hereof, except to the extent that the Town Meeting may vote to make any one or more provisions hereof applicable to the same.

B. Definitions

1. Appointing Authority - the person or entity having the power to appoint persons to committees. Unless otherwise specified, the Moderator shall be the appointing authority.

2. Committee - any committee, commission, board, task force or other such group however denominated.

3. Entity - a board, corporation, voluntary association, committee, commission, or other group. Unless the bylaws or a vote of such entity specify otherwise, an entity shall act by its chair, president, or other chief executive officer.

*4. Members of a Committee - ~~registered voters~~ **residents** of the Town, unless the vote otherwise specifies **but in any event who must be the legal age of majority in accordance with state law.***

5. Nominating Authority - the person or entity having the power to nominate or designate one or more members of a committee. If no nominating authority is specified, the appointing authority shall also be the nominating authority.

6. Town Official – (ART. 10, ATM – 04/26/99) whenever a vote by the Town Meeting or a Bylaw shall provide for the appointment or nomination of an elected or appointed official of the Town, except a Town Meeting member, such designation shall be considered to mean and shall include the designee of such official, unless the vote or bylaw specifically provides otherwise.

(*4-0)

Mrs. Mahon was absent.

COMMENT: The Board heard from the proponent that the purpose of the proposed change is to promote inclusivity with Town Boards, Commissions and Committees. A discussion ensued regarding the potential legal implications of the change, which were broad enough to encompass minors as eligible for membership. The Board and Town Counsel discussed how the spirit of the proposed change could be preserved while mitigating risk against the Town. The Board voted for favorable action on the proposed change pending the Legal Department's prospective edits to the proposed bylaw change to expressly require that the age of majority is a threshold requirement for membership on Town Boards, Commissions and Committees.

**ARTICLE 13 HOME RULE LEGISLATION / ARLINGTON REDEVELOPMENT
BOARD AS THE TOWN OF ARLINGTON BOARD OF SURVEY**

VOTED: That the Town does and hereby authorizes the Select Board to file Home Rule Legislation to provide substantively as follows:

"AN ACT AMENDING THE TOWN MANAGER ACT OF THE TOWN OF ARLINGTON.

Be it enacted by the Senate and House of Representatives in the General Court assembled, and by the authority of the same, as follow:

Section 1. Chapter 503 of the acts of 1952, as most recently amended by chapter 10 of the acts of 2022 is hereby further amended as set forth below.

Section 2. Section 10 of said chapter 503, as so appearing, is hereby amended by striking out each of the two references to "Select Board" and replacing each with "Redevelopment Board".

Section 3. Section 17 of said chapter 503, as so appearing, is hereby amended by striking out the words "except that the Redevelopment Board shall not have any of the powers or perform any of the duties of or in conflict with the powers or duties of a board of survey all of which powers and duties shall continue to be exercised and performed by the Select Board constituted as a board of survey unless and until such town by vote of a town meeting shall vote to terminate the existence of the board of survey or to accept the provisions of the subdivision control law contained in Sections eighty-one K to eighty-one GG, inclusive, of said chapter forty-one and any amendments thereof or additions thereto, and the subdivision control law shall not be or be deemed to be in effect in such town unless and until such town by vote of a town meeting shall vote to accept the provisions thereof" Section 17 is further amended by replacing the comma after "Section eighty-one A" with a period.

Section 4. Section 26 of said chapter 503, as so appearing, is hereby amended by striking out the words "or Board of Survey" and further amended by striking out the word "surveyors" and replacing it with the word "regulators".

Section 5. *This act will take effect upon its passage. "*

(*3-0)

Mrs. Mahon was absent.

Mr. Helmuth recused himself.

COMMENT: The Board heard from Sarah Suarez, the Town's Assistant Director of Planning for the Department of Planning and Community Development, regarding the rationale behind the proposed legislation. Assistant Director Suarez explained that a prior statute from 2009 named the Arlington Redevelopment Board as the Board of Survey, but Arlington's Town Manager Act, another statute, had not been updated to reflect the 2009 statutory change. As a result, Assistant Director Suarez explained that the purpose of this proposed legislation is to bring the Town Manager Act in line with existing law. The Board discussed the timing of the change and ultimately voted in support of favorable action on the legislation.

ARTICLE 14 HOME RULE LEGISLATION/ REAL ESTATE TRANSFER

VOTED: That the Town does and hereby authorizes the Select Board to file Home Rule Legislation to provide substantively as follows:

"AN ACT ESTABLISHING A REAL ESTATE TRANSFER FEE UPON THE TRANSFER OF PROPERTY IN THE TOWN OF ARLINGTON.

Be it enacted by the Senate and House of Representatives in the General Court assembled, and by the authority of the same, as follow:

Section 1. There is hereby imposed a real estate transfer fee, hereinafter "the fee," upon the transfer of any real property interest or the transfer of a controlling interest in a trust, limited liability company or other entity that directly or indirectly holds an interest in any real property situated in the town of Arlington according to the price thresholds, fee rates and other terms to be established pursuant to Sections 2 and 3 by town meeting following a recommendation by the select board of the town of Arlington.

Section 2. The fee established pursuant to Section 1 shall apply to any transfer exceeding a threshold price between 50 per cent to 150 per cent of the state median sale price of a single-family home. The threshold price shall be set by town meeting following a recommendation by the select board.

Section 3. The fee established pursuant to Section 1 shall be between 0.05 per cent and 2 per cent of the transfer price, to be assessed upon the buyer or transferee, the seller or transferor or both parties to be determined by a vote of town meeting following a recommendation by the select board of the town of Arlington. The town of Arlington may define by by-law what constitutes a controlling interest and the calculation of the fee.

Section 4. The following transfers of real property interests shall be exempt from the fee established in Section 1:

(a) transfers for less than 50 per cent to 150 per cent of the state median sale price of a single-family home as determined by the department of housing and community development;

(b) transfers made as gifts with consideration less than \$100 if the seller shall have been at the time of the transfer the spouse, domestic partner, lineal descendant or the lineal ancestor of the purchaser, by blood, marriage or adoption;

(c) transfers to the federal government, the commonwealth and any of their instrumentalities, agencies or subdivisions, including the town of Arlington and the Arlington housing authority;

(d) transfers of residential property that include 1 or more units subject to affordable housing restrictions, as defined in Section 31 of chapter 184 of the General Laws; provided, however, that the fee imposed shall be proportionately reduced based on the percentage of residential units subject to affordable housing restrictions, as compared to the total number of residential units;

(e) transfers made without additional consideration to confirm, correct, modify or supplement a transfer previously made;

(f) transfers by operation of law without actual consideration, including, but not limited to, transfers occurring by virtue of death or bankruptcy of the owner of real property interest;

(g) transfers made in partition of land and improvements thereto, pursuant to chapter 241 of the General Laws;

(h) transfers to a charitable organization, as defined in clause Third of Section 5 of chapter 59 of the General Laws, or a religious organization; provided, however, that the real property interests so transferred shall be held solely for affordable housing related uses that are consistent with the uses allowed by the Arlington affordable housing trust fund established pursuant to Section 55C of chapter 44 of the General Laws;

(i) transfers for a mortgagee in foreclosure of the mortgage held by the mortgagee, and transfers of the property subject to a mortgage to the mortgagee in consideration of the forbearance of the mortgagee from closing such mortgage; and

(j) transfers consisting of the division of marital assets pursuant to Section 34 of chapter 208 of the General Laws or other provisions of law.

Section 5. The town of Arlington shall not, by by-law or otherwise, eliminate or reduce any exemption set forth in Section 4.

Section 6. The fee shall be paid to the town of Arlington and deposited into the Arlington affordable housing trust fund pursuant to said Section 55C of said chapter 44, and appropriations therefrom shall be limited to financing affordable housing and reasonable amounts for personnel and other costs. The town of Arlington shall have such remedies to collect the fee as provided by law with respect to the collection of real property taxes, including collection and imposing liens for any outstanding transfer fee.

Section 7. The town of Arlington may, by by-law, adopt additional requirements, exemptions, waivers and regulations to implement or enforce the fee, consistent with this act.

Section 8. The town of Arlington shall require a copy of the deed or other instrument evidencing such transfer and shall be accompanied by:

(a) an affidavit signed under oath or under the pains and penalties of perjury by the purchaser and seller attesting to the purchase price;

(b) the applicable fee owed or, if applicable, an affidavit of intent to seek one of the permissible exemptions, as described in Section 4 for that property by the purchaser; and

(c) the basis, if any, upon which the transfer is claimed to be exempt in whole or in part from the fee.

Section 9. Upon receipt of the transfer fee or satisfactory evidence of exemption, the town of Arlington or its designee shall promptly thereafter issue a certificate indicating that the fee has been paid or that the transfer is exempt from the fee. The Middlesex South registry of deeds shall not record or register a deed unless the deed is accompanied by such certificate.

Section 10. The town of Arlington shall prepare and issue an annual report that:

(a) identifies fee receipts;

(b) quantifies affordable housing programs funded, including type and purpose; and

(c) evaluates the impact of the affordable housing programs, including, but not limited to, to the extent reasonably possible and permitted by applicable law, the number and demographics of individuals and families served as well as measures of housing stability and wealth generation in the community.

Section 11. Acceptance of this act by the town of Arlington shall be first by vote of approval at an annual town meeting, to be followed by an affirmative vote of a majority of the voters at any regular or special election at which the question of acceptance is placed on the ballot.

Section 12. Sections 1 to 10, inclusive, shall take effect 30 days after acceptance by the town of Arlington pursuant to Section 11.

Section 13. This act will take effect upon its passage."

(*3-0)

Mrs. Mahon was absent.

Mr. Helmuth recused himself.

COMMENT: The Board heard from Sarah Suarez, the Town's Assistant Director of Planning for the Department of Planning and Community Development, regarding the rationale behind the proposed legislation. Assistant Director Suarez explained that this legislation was originally filed in 2023 pursuant to the Town's Annual Town Meeting passage of Article 25. She explained that the goal of the legislation is to secure a consistent and independent source of for the Town's Affordable Housing Trust in order to support affordable housing throughout the Town. The

Board discussed the importance of the Town's leadership with the initial legislation in 2023 and voted for favorable action on this warrant article.

**ARTICLE 15 HOME RULE LEGISLATION / TO AMEND THE SENIOR
CITIZEN PROPERTY TAX EXEMPTION**

**The Board moved to table the hearing on Article
15 until March 24, 2025.**

(*3-0)

**Mrs. Mahon was absent.
Mr. Helmuth recused himself.**

COMMENT: The Board voted to table this Article until March 24, 2025 because the Town's Board of Assessors have not yet taken a required vote on this particular article.

ARTICLE 17 HOME RULE LEGISLATION / RODENTICIDE

**VOTED: That the Town does and hereby authorizes the Select Board to file Home Rule
Legislation to provide substantively as follows:**

*"AN ACT AUTHORIZING THE TOWN OF ARLINGTON TO PROHIBIT USE OF
SECOND GENERATION ANTI-COAGULANT RODENTICIDES BY COMMERCIAL
PESTICIDE APPLICATORS.*

*Be it enacted by the Senate and House of Representatives in the General Court assembled, and
by the authority of the same, as follow:*

*Section 1. Notwithstanding chapter 132B of the General Laws or any other general or special
law to the contrary, the town of Arlington may regulate through local bylaw or board of health
regulation or ordinance the use of second generation anti-coagulant rodenticides within the
town of Arlington, including prohibiting the use of such pesticides by licensed commercial
applicators as defined in 333 C.MR. 10.00.*

Section 2. This Act will take effect upon its passage. "

(*3-0)

**Mrs. Mahon was absent.
Mr. Helmuth recused himself.**

COMMENT: The Board heard from the article's proponent, who explained the purpose of the proposed legislation and it having previously been filed with the Legislature in 2022 in accordance with Town Meeting's passage of Article 18. The proponent explained that the current proposed legislation is substantially the same and noted the Town's leadership along with other communities who are trying to promote state action to protect the wildlife impacted and put in danger by the types of rodenticides described in the proposed legislation. Town Counsel

ARTICLE 18 **HOME RULE LEGISLATION / RANK CHOICE**
VOTING

“AN ACT RELATIVE TO RANKED CHOICE VOTING IN THE TOWN OF ARLINGTON

SECTION 1. Chapter 503 of the acts of 1952, as most recently amended by chapter 94 of the acts of 2019, is hereby amended by inserting after section 8 the following section:-

"Batch elimination", the simultaneous defeat of multiple candidates for whom it is mathematically impossible to be elected.

"Concluded ballot", a ballot that does not rank any continuing candidate, contains an overvote at the highest-ranked continuing candidate, or contains 2 or more sequential skipped rankings before its highest-ranked continuing candidate.

"Continuing candidate", a candidate who has not been defeated or elected.

"Highest-ranked continuing candidate", the continuing candidate with the highest ranking on a voter's ballot.

"Last-place candidate", (i) the candidate with the lowest vote total in a round of the ranked-choice voting tabulation; or (ii) a candidate that is defeated in batch elimination.

"Overvote", a circumstance in which a voter ranks more than 1 candidate at the same ranking.

"Ranked choice voting", a method of casting and tabulating ballots in which voters rank candidates for office in order of preference.

“Ranking”, the number assigned on a ballot by a voter to a candidate to express the voter's preference for that candidate. Ranking number 1 shall be the highest ranking, ranking number 2 shall be the next-highest ranking and so on.

"Round", an instance of the sequence of voting tabulation steps established pursuant to subsection (c).

"Skipped ranking", a circumstance in which a voter does not use a ranking and ranks a candidate with a subsequent ranking.

(b) The offices of select board member, school committee member, town clerk, moderator, elected member of the board of the housing authority and assessor shall be elected by ranked choice voting at the annual election. Ranked choice voting shall apply to a single-seat office only when the number of candidates exceeds 2 and to a multi-seat office only when the number of candidates exceeds the number of seats to be elected. Ranked choice voting elections shall be tabulated pursuant to this section.

(c) In any single-seat election, each round shall begin by counting the number of votes for each continuing candidate. Each ballot shall count as 1 vote for its highest-ranked continuing candidate. Concluded ballots shall not be counted for any continuing candidate. Each round shall end with 1 of the following 2 outcomes:

(1) If there are more than 2 continuing candidates, the last-place candidate shall be defeated or the last-place candidates shall be defeated in batch elimination, and a new round shall begin; or

(2) If there are 2 continuing candidates, the candidate with the fewest votes shall be defeated and the candidate with the most votes shall be elected, and tabulation shall be complete.

(d) In any multi-seat election, the first seat shall be filled pursuant to the tabulation process established in subsection (c). The remaining seats shall be filled by repeated application of the tabulation process in established in subsection (c); provided, however, that all votes marked for candidates who have already been elected shall be disregarded and votes shall be counted for the next highest-ranked continuing candidate.

(e) A candidate shall be defeated in batch elimination if:

(1) the candidate's current vote total plus all votes that could possibly be transferred to the candidate in future rounds is not enough to equal or surpass the candidate with the next higher current vote total; or

(2) the candidate has fewer votes than a candidate described in clause (1).

(f) If 2 or more last-place candidates are tied and batch elimination does not apply, the candidate with the fewest votes in the prior round shall be defeated. If 2 or more such tied candidates were tied in the prior round, the second tie shall be decided by referring similarly to the standing of the candidates, in terms of votes, in the second-prior round. This process shall be applied successively as many times as necessary, a tie shown in any prior round shall be decided by referring to the standing of the candidates in the round immediately preceding the tie.

(g) The town clerk may make any changes to the ranked choice voting ballot and tabulation process necessary to ensure the integrity and smooth functioning of the election; provided, that ranked choice voting shall still be used and the fewest number of changes are made to achieve such purpose.

(h) The town clerk shall publish election results that show the tabulations by rounds.

SECTION 2. This act shall take effect upon the acceptance by the town of Arlington by the affirmative vote of a majority of voters at any regular or special election at which the question of acceptance is placed on the ballot.

(*2-1)

Mrs. Mahon was absent.

Mr. Helmuth recused himself.

COMMENT: The Board heard from the article's proponent who noted that the proposed legislation was originally filed in 2023 pursuant to the 2021 Annual Town Meeting's passage of Article 24. It was explained to the Board that the previously filed legislation did not pass that legislative session and as a result, this warrant article would allow Town Meeting to again vote on the proposed legislation. Mr. DeCoursey discussed the potential implications of ranked choice voting with multi-seat races which gave him pause and supported his vote against this warrant article. Mr. Hurd and Mr. Diggins voted in support of favorable action for the proposed legislation.

ARTICLE 19

HOME RULE LEGISLATION / WILLIAM PILLERI

VOTED: That the Town does and hereby authorizes the Select Board to file Home Rule Legislation to provide substantively as follows:

"AN ACT TO PERMIT TOWN RESIDENT, WILLIAM PILLERI, TO TAKE THE CIVIL SERVICE TEST FOR THE POSITION OF FIREFIGHTER IN THE TOWN OF ARLINGTON.

Be it enacted by the Senate and House of Representatives in the General Court assembled, and by the authority of the same, as follow:

Section 1. Notwithstanding the provisions of any special or general law to the contrary, including without limitation Chapter 31 of the General Laws, the Civil Service law, William Pilleri, a resident of the Town of Arlington, is authorized to take the Civil Service examination for appointment to the position of Firefighter, notwithstanding the fact that he has attained the age of 32. The authority under this act will expire on June 1, 2029.

Section 2. This Act will take effect upon its passage."

(*3-0)

Mrs. Mahon was absent.

Mr. Helmuth recused himself.

COMMENT: The Board heard from the article's proponent, a lifelong resident of the Town of Arlington who is seeking to give back to the community and serve as a firefighter. The purpose

of the proposed legislation is to seek relief for Mr. Pilleri at the local level to permit him to be a candidate for the Town's Fire Department at the age of 32. The proposed legislation is required because state law as applied to the Town currently does not permit candidates aged 32 or older to be appointed as Firefighters. The Board thanked Mr. Pilleri for his commitment to serving the Town and voted in support of favorable action on this warrant article.



Town of Arlington, Massachusetts

NEW BUSINESS



Town of Arlington, Massachusetts

Next Scheduled Meeting of Select Board March 24, 2025

Summary:

When: Mar 17, 2025 07:15 PM Eastern Time (US and Canada)

Topic: Select Board Meeting

Register in advance for this webinar:

https://town-arlington-ma-us.zoom.us/webinar/register/WN_Vp_D2duRSVivbKtLNSJbJQ

After registering, you will receive a confirmation email containing information about joining the webinar.

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